

METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS
Michael Allen Whitney
VPI/02-143 US2

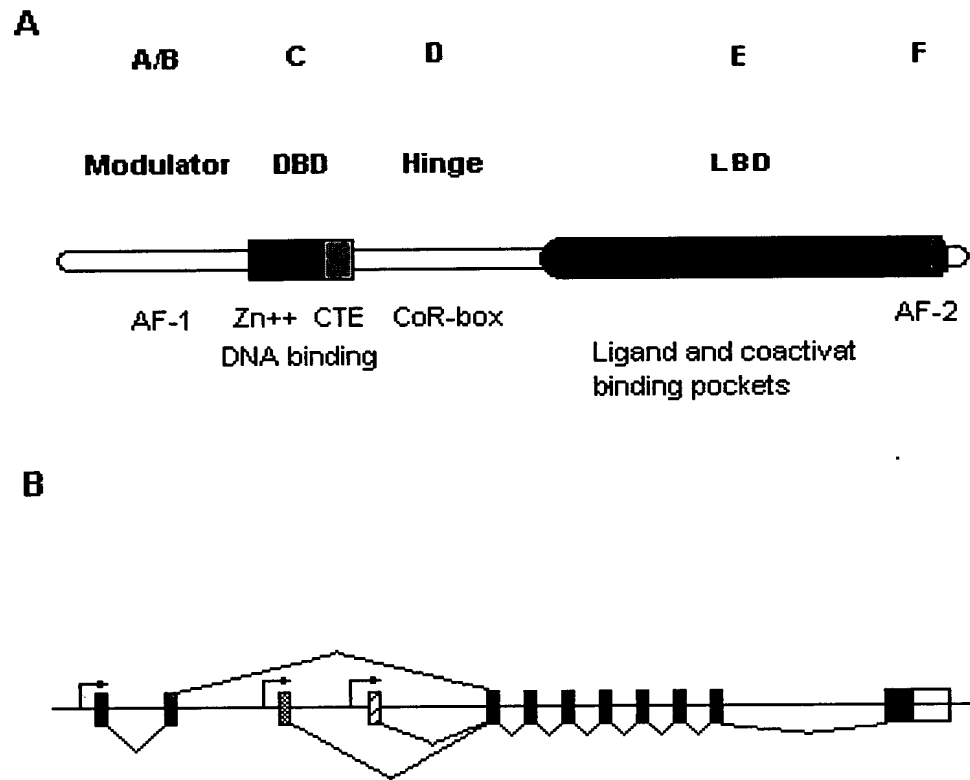


FIG. 1

METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS
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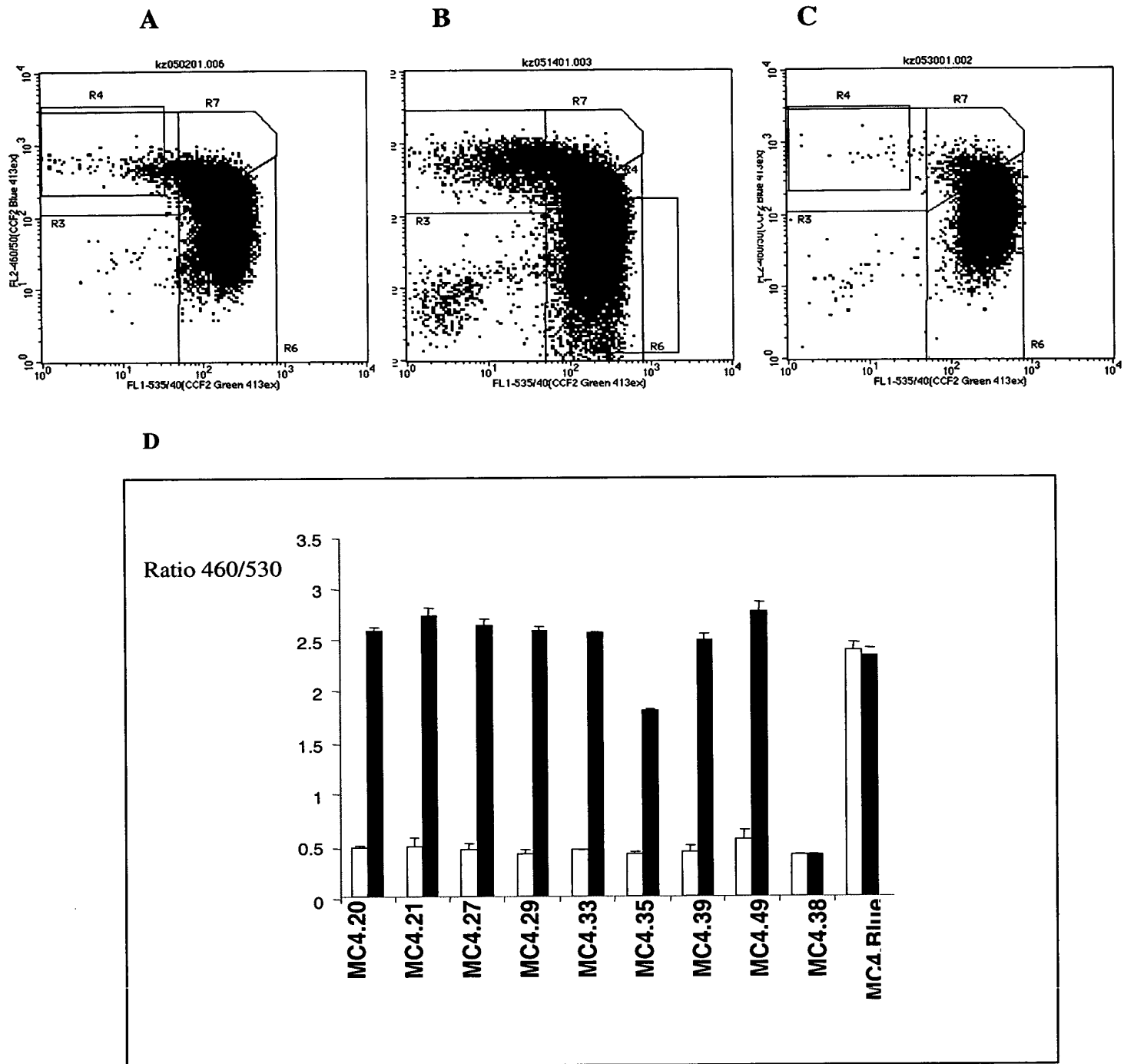


FIG. 2

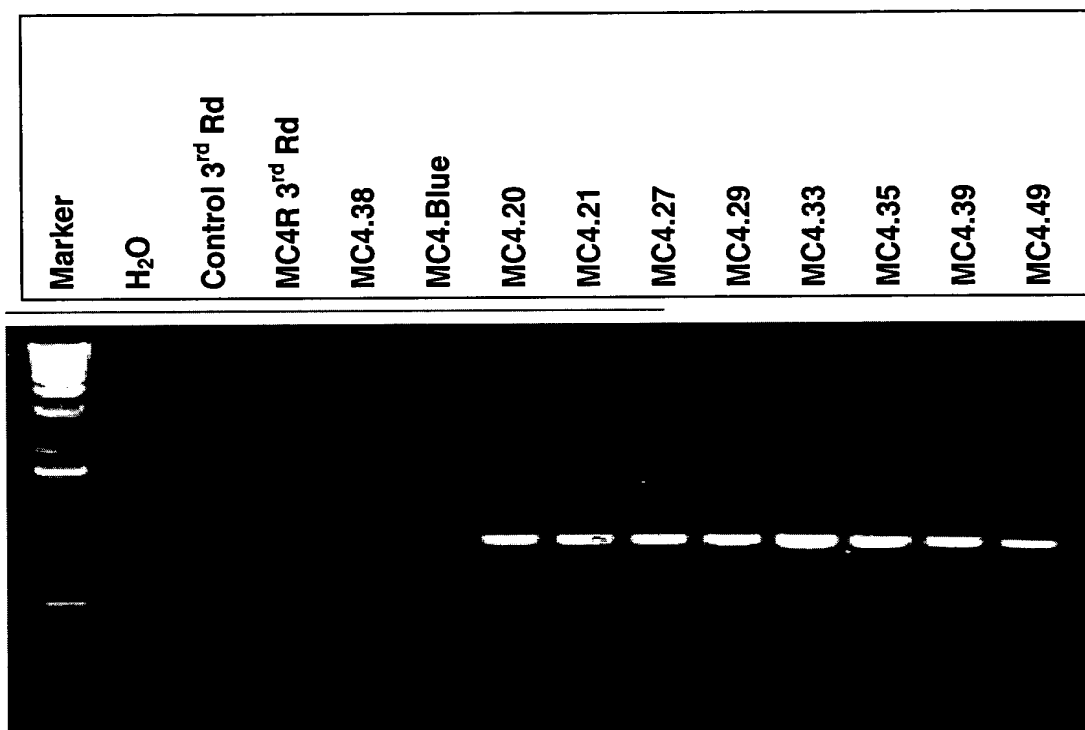


FIG. 3

Ratio 435/530 nm

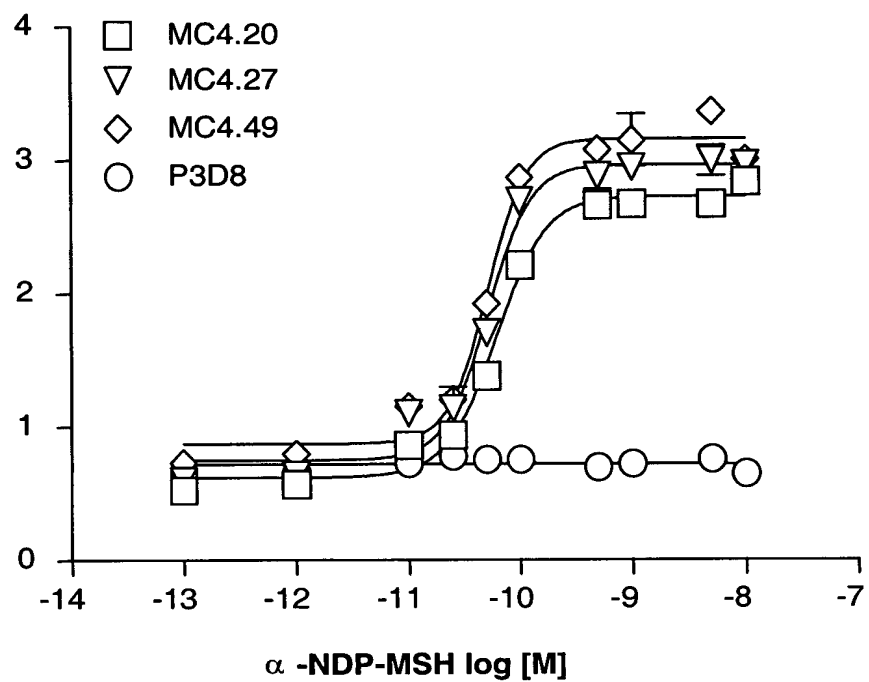


FIG. 4

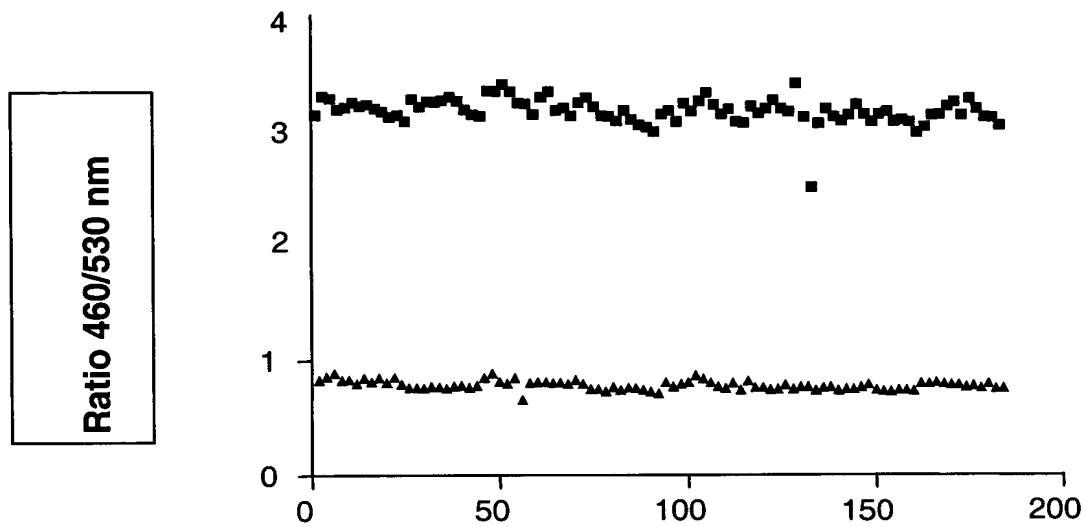


FIG. 5

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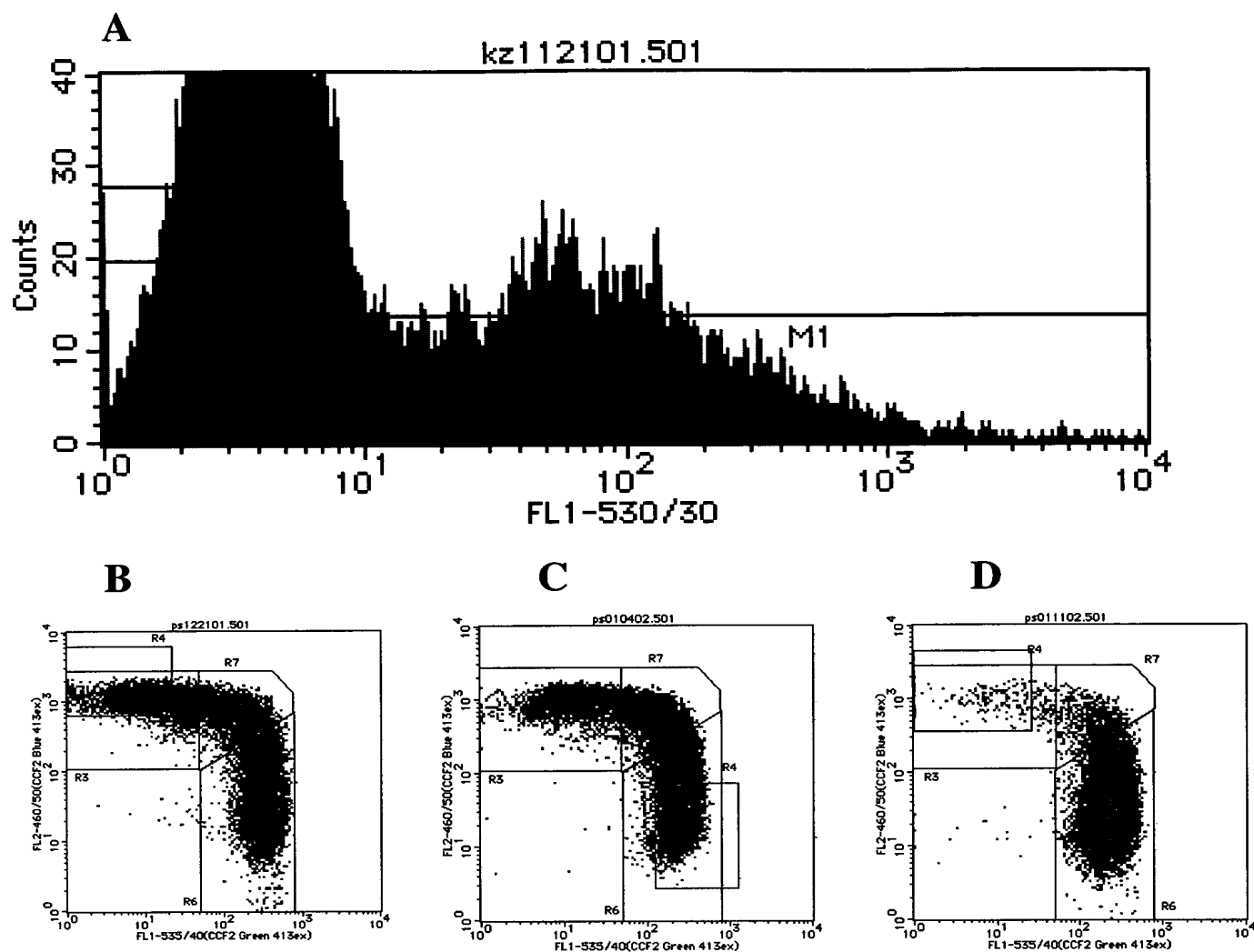


FIG. 6

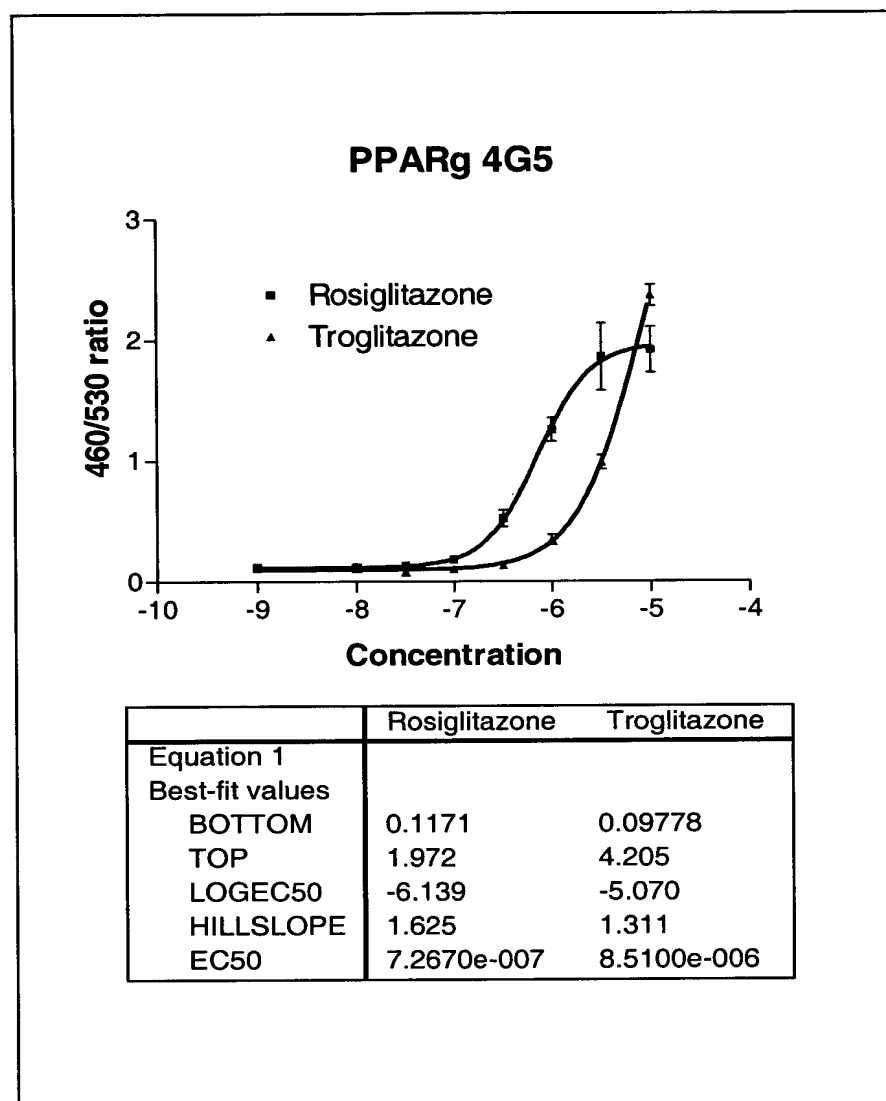


FIG. 7

460/530 ratio

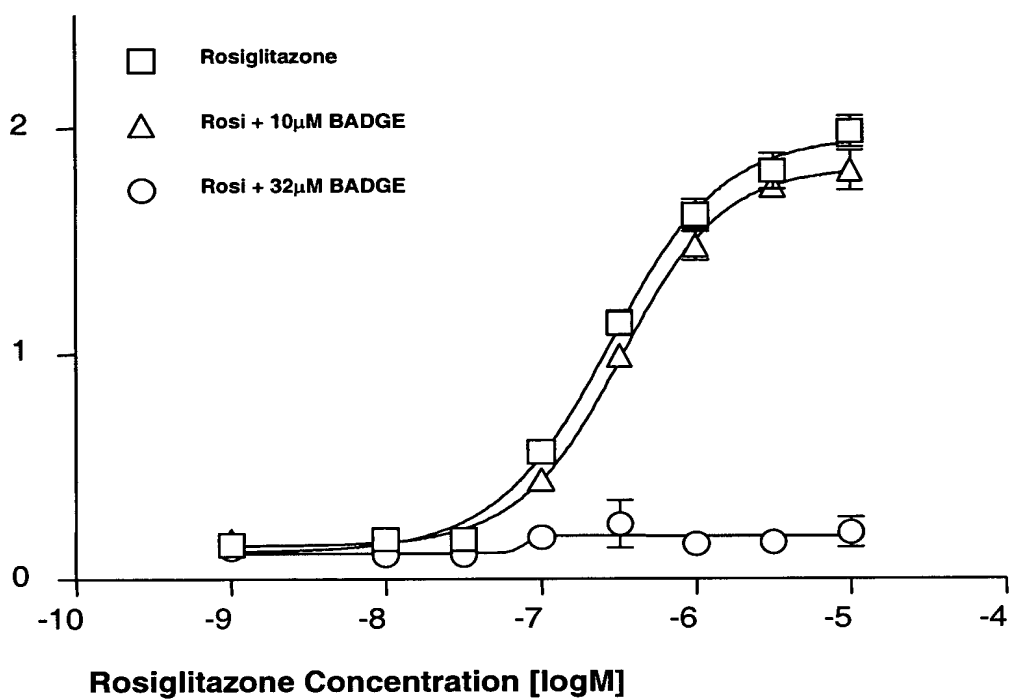


FIG. 8

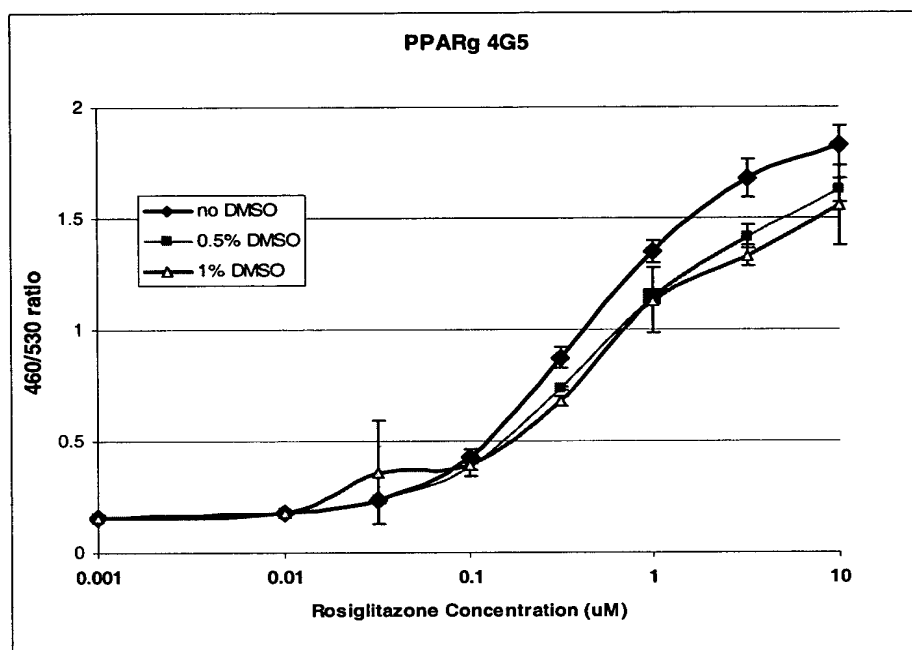


FIG. 9

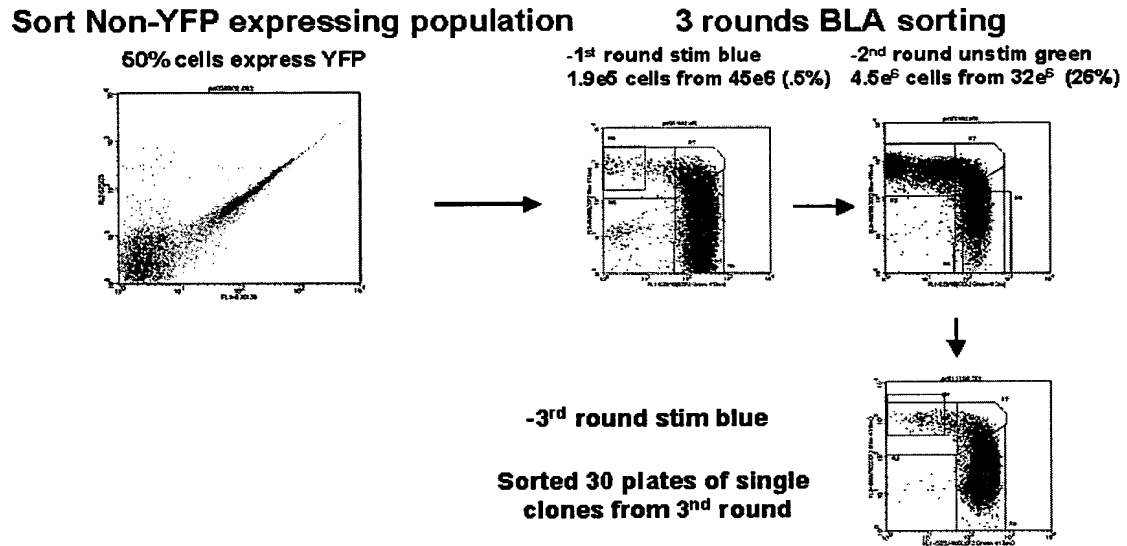
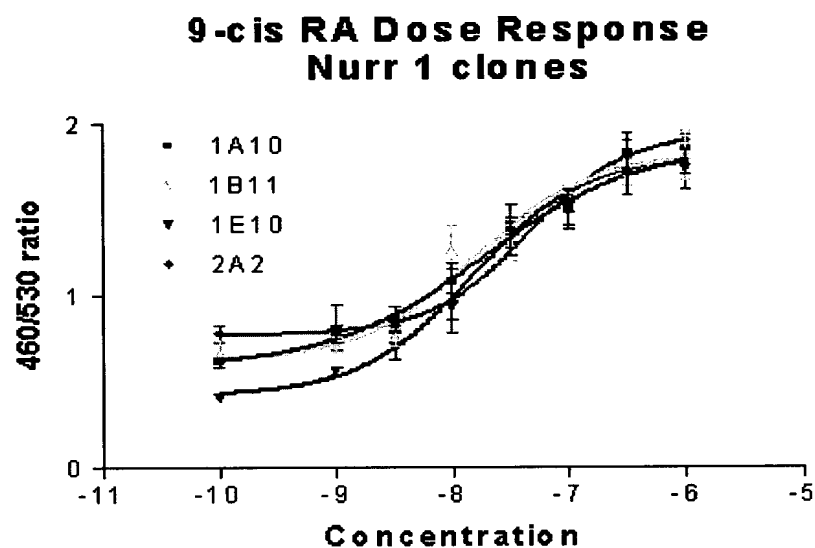


FIG. 10



	1A10	1B11	1E10	2A2
Best-fit values				
BOTTOM	0.5840	0.6189	0.4197	0.7722
TOP	1.874	1.828	1.819	1.946
LOGEC50	-7.725	-7.805	-7.821	-7.348
HILLSLOPE	0.6524	0.8589	0.8954	1.025
EC50	1.8830e-008	1.5650e-008	1.5110e-008	4.4760e-008

FIG. 11

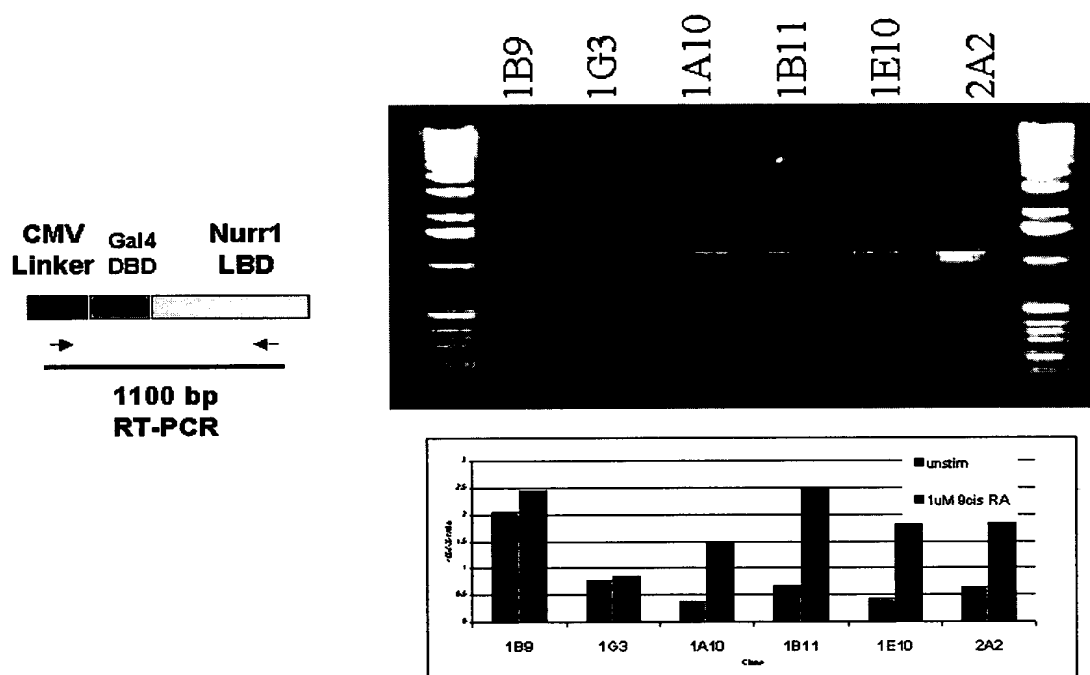
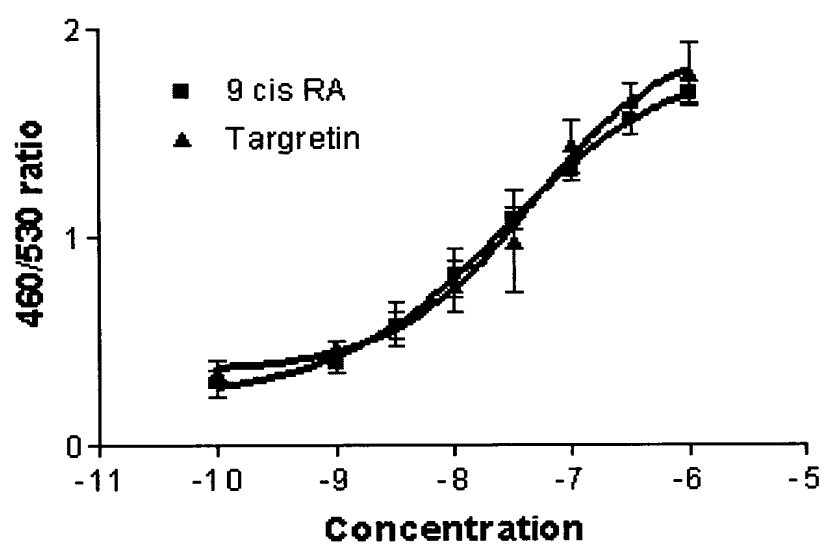


FIG. 12

Nurr 1 Clone 1E10



	9 cis RA	Targretin
Equation 1		
Best-fit values		
BOTTOM	0.2317	0.3604
TOP	1.857	1.957
LOGEC50	-7.562	-7.337
HILLSLOPE	0.5994	0.7299
EC50	2.7420e-008	4.6010e-008

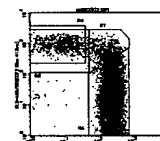
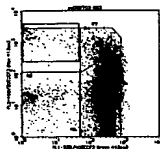
FIG. 13

**Sort Non-YFP
expressing**

3 rounds BLA

-1st round stim

-2nd round unstim

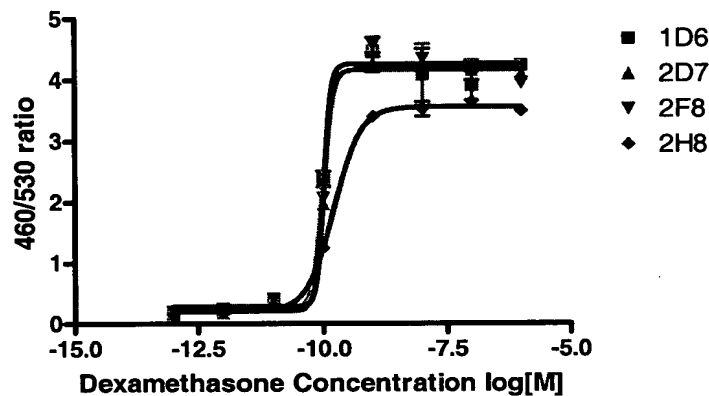


-3rd round stim

**Sorted 30 plates of
single**

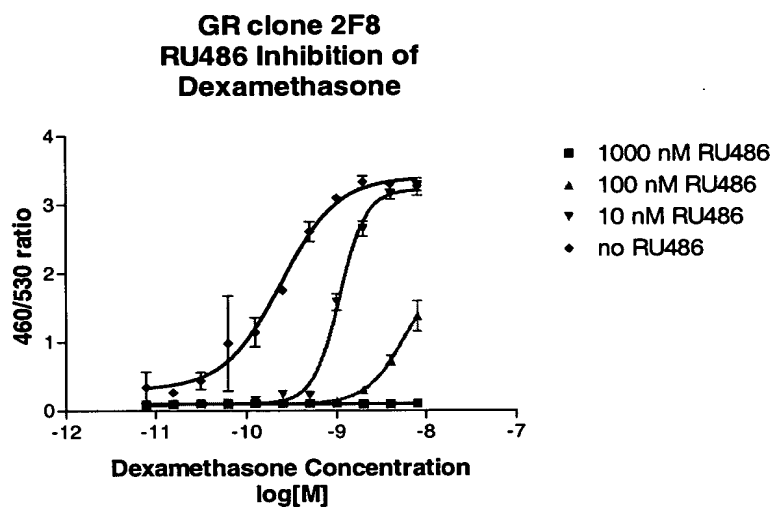
FIG. 14

**Dexamethasone dose response profiling
of GR clones**



	1D6	2D7	2F8	2H8
Sigmoidal dose-response (variable slope)				
Best-fit values				
BOTTOM	0.2699	0.2133	0.2867	0.2025
TOP	4.167	4.160	4.250	3.556
LOGEC50	-10.02	-9.981	-9.986	-9.789
HILLSLOPE	4.712	5.026	6.110	1.609
EC50	9.6534e-011	1.0448e-010	1.0334e-010	1.6242e-010

FIG. 15



	1000 nM RU486	100 nM RU486	10 nM RU486	no RU486
Sigmoidal dose-response (variable slope)				
Best-fit values				
BOTTOM	0.06993	0.09536	0.1019	0.3058
TOP	0.09667	2.047	3.216	3.397
LOGEC50	-10.85	-8.239	-8.963	-9.619
HILLSLOPE	10.22	2.007	2.885	1.377
EC50	1.3999e-011	5.7683e-009	1.0886e-009	2.4043e-010

FIG. 16

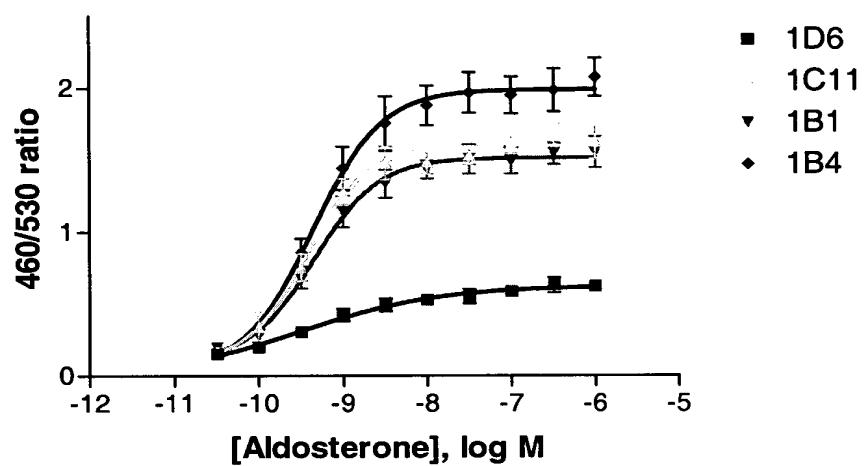


FIG. 17

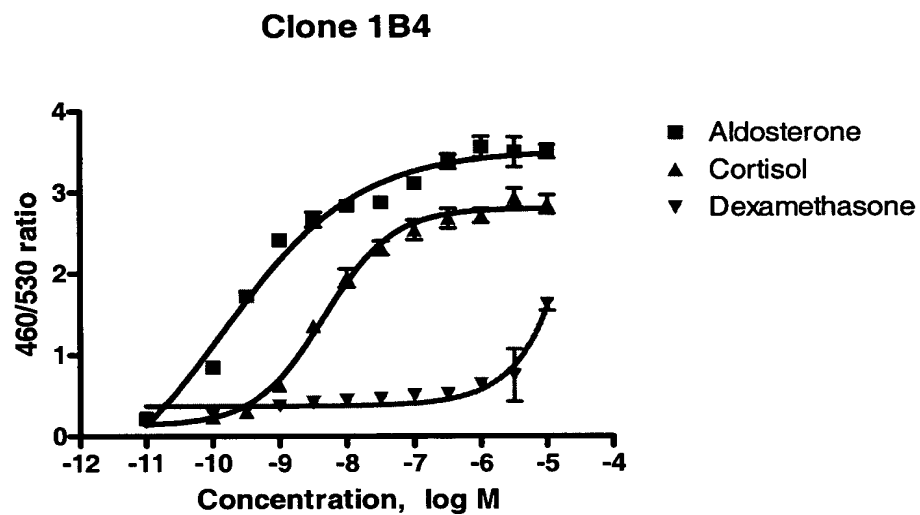
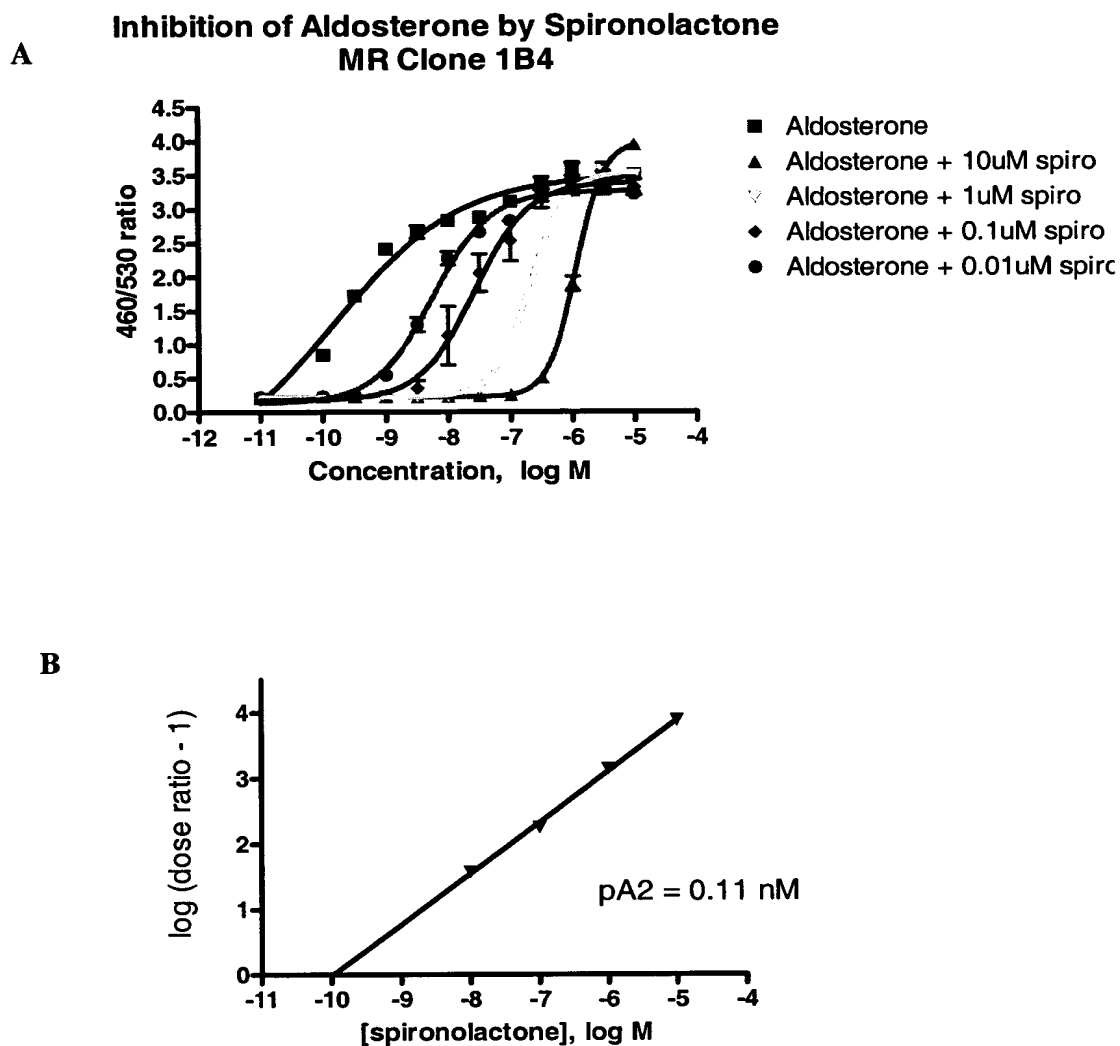


FIG. 18

**FIG. 19**

Nurrl targeting sequence (SEQ ID NO:71)

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AGGCAGAAATGTCGATGTTTCATATTCTGCAAGTTGGAGGAGAATTCAACA
ATGGAATCAATCCATTCCCCAAAGCCACGAACGCATTGCAACCTGTGCAA
GACCACCCCATTTGCAAAAGATGAGTTTACCCTCCACTGGGTTGGACCTGC
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TCCAAGGCTTCTGGGCTCGCTTCTTCTCGTCTTTTTTTGTTTTCTTTCTTTT
CTTCCTTTCTCCGACTTCCATTTCCCTATTCTGTCTTTTTCTCTACCCCAACCT
CTGGTTTCCCTTCCCTCCCTTTCTTTTCTTTCTTGATTTCTCTCACAGCCTCC
CTGGATTGTCTCCTCCCTCCCTTATTACCTGTATGCTAATCGAAGGACAAA
CAGTTCTAAGAAAGCTGATTCAAAAAGCAGGTCTTGGTCGGCTTTGGGCA
GGTCTGCGAAGCCAGGGATCTTCTCTGCCCAGCCCCGGATGATCTCCATG
GAGCCAGTCAGGAGATCATAGAATTGCTGGATATGCTGGGTGTCATCTCC
ACTCATTTGATAGTCAGGGTTCGCCTGGAAGTGAATTTTCATTTTAAAAAG
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CCTTTTGCAAATCTTAATAAAATTGCAGTCCCTACCAGGTTTGCTCAACAT
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CCCTGACCCCCAGACAGCCCCCACATCCTTCCCCAGCACAGTGCCAGGAA
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pCDGal4-DBD-Nurr1 (SEQ ID NO:72)

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METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS

Michael Allen Whitney

VP/02-143 US2

Fig 21b (con't)

TGGAAGTCGGAGAAAGGAAGAAAAAGAAAGAAAAACAAAAAAGACGAG
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GCCGTGGTTGGCTTGTATGGAGCAGCAGACGCGCTACTTCGAGCGGAGGC

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Fig 21c (con't)

ATCCGGAGCTTGCAGGATCGCCGCGGCTCCGGGCGTATATGCTCCGCATT
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Fig 21d (con't)

ACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACACGGAAAT
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GCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCGCCCAACGAC
CCCCGCCCATTTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATA
GGGACTTTCATTGACGTCAATGGGTGGAGTATTTACGGTAAACTGCCCA
CTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGACGT
CAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTACATGACCTTAT
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TCACGGGGATTTCCAAGTCTCCACCCCATTTGACGTCAATGGGAGTTTGTTT
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GAGC

pKI-Gal4-DBD-Nurr1 (SEQ ID NO:73)

TGCACGCTTCAAAAGCGCACGTCTGCCGCGCTGTTCTCCTCTTCCTCATCT
CCGGGCCTTCGACCTGCATGAAAAAGCCTGAACTCACCGCGACGTCTGTC
GAGAAGTTTCTGATCGAAAAGTTCGACAGCGTCTCCGACCTGATGCAGCT
CTCGGAGGGCGAAGAATCTCGTGCTTTCAGCTTCGATGTAGGAGGGCGTG
GATATGTCCTGCGGGTAAATAGCTGCGCCGATGGTTTCTACAAAGATCGTT
ATGTTTATCGGCACTTTGCATCGGCCGCGCTCCCGATTCCGGAAGTGCTTG
ACATTGGGGAATTCAGCGAGAGCCTGACCTATTGCATCTCCCGCCGTGCA
CAGGGTGTACGTTGCAAGACCTGCCTGAAACCGAACTGCCCGCTGTTCT
GCAGCCGGTCGCGGAGGCCATGGATGCGATCGCTGCGGCCGATCTTAGCC
AGACGAGCGGGTTCGGCCCATTCGGACCGCAAGGAATCGGTCAATACT
ACATGGCGTGATTTTCATATGCGCGATTGCTGATCCCCATGTGTATCACTGG
CAAACGTGTATGGACGACACCGTCAGTGCGTCCGTCGCGCAGGCTCTCGA
TGAGCTGATGCTTTGGGCCGAGGACTGCCCCGAAGTCCGGCACCTCGTGC
ACGCGGATTTTCGGCTCCAACAATGTCCTGACGGACAATGGCCGCATAACA
GCGGTCAATTGACTGGAGCGAGGCGATGTTTCGGGGATTCCCAATACGAGGT
CGCCAACATCTTCTTCTGGAGGCCGTGGTTGGCTTGTATGGAGCAGCAGA
CGCGCTACTTCGAGCGGAGGCATCCGGAGCTTGCAGGATCGCCGCGGCTC
CGGGCGTATATGCTCCGCATTGGTCTTGACCAACTCTATCAGAGCTTGGTT
GACGGCAATTTTCGATGATGCAGCTTGGGCGCAGGGTCGATGCGACGCAAT
CGTCCGATCCGGAGCCGGGACTGTGCGGGCGTACACAAATCGCCCGCAGAA
GCGCGGCCGTCTGGACCGATGGCTGTGTAGAAGTACTCGCCGATAGTGGA
AACCGACGCCCCAGCACTCGTCCGAGGGCAAAGGAATGCCTGAGAAAGG
AAGTGAGCTGTAAAGGCTGAGCTCTCTCTCTGACGTATGTAGCCTCTGGTT
AGCTTCGTCACTCACTGTTCTTGACTCAGCATGGCAATCTGATGAAATCCC
AGCTGTAAGTCTGCATAAATTGATGATCTATTAAACAATAAAGATGTCCA
CTAAAATGGAAGTTTTTTTACTGTCATACTTTGTTAAGAAGGGTGAGAACA
GAGTACCTACATTTTGAATGGAAGGATTGGAGCTACGGGGGTGGGGGTGG
GGGTGGGATTAGATAAATGCCTGCTCTTTACTGAAGGCTCTTTACTATTGC
TTTATGATAATGTTTCATAGTTGGATATCATAATTTAAACAAGCAAAACCA
AATTAAGGGCCAGCTCATTCTCCACTCATGATCTATAGATCTATAGATCT
CTCGTGGGATCATTGTTTNTCTGATCCACTGGAAGCTTATCGATACCGTCG
ACCTCGAGGGGGGGGCCCGGTACCCAGCTTTTGTTCCTTTAGTGAGGGTTA
ATTGCGCGCTTGGCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGT
TATCCGCTCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTA
AGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTC
ACTGCCCCGCTTTCCAGTCGGGAAACCTGTCTGTCGAGCTGCATTAATGAAT
CGGCCAACGCGCGGGGAGAGGCGGTTTTCGTATTGGGCGCTCTTCCGCTT
CCTCGCTCACTGACTCGCTGCGCTCGGTCTGTCGGCTGCGGCGAGCGGTAT
CAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAAC
GCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTA
AAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGC
ATCACAAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACT
ATAAAGATAACAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGT
TCCGACCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAG
CGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGT
CGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTTCAGCCCGACC
GCTGCGCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACG
ACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGG

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Fig. 22b (con't)

TATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTA
CACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTT
CGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTA
GCGGTGGTTTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGA
TCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAC
GAAAACACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTT
CACCTAGATCCTTTTAAATTA AAAATGAAGTTTTAAATCAATCTAAAGTAT
ATATGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCAC
CTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGT
CGTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTG
CAATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATA
AACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATC
CGCCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTC
GCCAGTTAATAGTTTTCGCAACGTTGTTGCCATTGCTACAGGCATCGTGTT
GTCACGCTCGTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATC
AAGGCGAGTTACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCT
TCGGTCCTCCGATCGTTGTCAGAAGTAAGTTGGCCGCAGTGTTATCACTCA
TGGTTATGGCAGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGAT
GCTTTTCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTA
TGCGGCGACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCG
CCACATAGCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGG
GCGAAAACCTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAAC
CCACTCGTGACCCCAACTGATCTTCAGCATCTTTTACTTTTACCAGCGTTTC
TGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAAAAAGGGAATAAGG
GCGACACGGAAATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGA
AGCATTTATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATT
TAGAAAAATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCC
ACCTAAATTGTAAGCGTTAATATTTTGTAAATTCGCGTTAAATTTTTGTT
AAATCAGCTCATTTTTTAACCAATAGGCCGAAATCGGCAAAATCCCTTATA
AATCAAAAGAATAGACCGAGATAGGGTTGAGTGTTGTTCCAGTTTGGAAC
AAGAGTCCACTATTAAGAACGTGGACTCCAACGTCAAAGGGCGAAAAA
CCGTCTATCAGGGCGATGGCCCACTACGTGAACCATCACCTAATCAAGT
TTTTTGGGGTTCGAGGTGCCGTAAAGCACTAAATCGGAACCCTAAAGGGAG
CCCCGATTTAGAGCTTGACGGGGAAAGCCGGCGAACGTGGCGAGAAAG
GAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGGGCGCTGGCAAGTGTA
CGGTCACGCTGCGCGTAACCACCACACCCGCCGCGCTTAATGCGCCGCTA
CAGGGCGCGTCCCATTCGCCATTCAGGCTGCGCAACTGTTGGGAAGGGCG
ATCGGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGGATGTG
CTGCAAGGCGATTAAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACGT
TGTA AACGACGGCCAGTGAGCGCGCGTAATACGACTCACTATAGGGCGA
ATTGGAGCTCCACCGCGGTGCGGCCGGGCCATGCAGGCCACGACATGATA
AGATACATTGATGAGTTTGGACAAACCACA ACTAGAATGCAGTGAAAAA
ATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTTGTAACCATTATA
AGCTGCAATAAACAAAGTTCTTGTACAGCTCGTCCATGCCGAGAGTGATCC
CGGCGGCGGTACGAACTCCAGCAGGACCATGTGATCGCGCTTCTCGTTG
GGGTCTTTGCTCAGGGCGGACTGGTAGCTCAGGTAGTGGTTGTCGGGCAG
CAGCACGGGGCCGTCGCCGATGGGGGTGTTCTGCTGGTAGTGGTCGGCGA
GCTGCACGCTGCCGTCTCGATGTTGTGGCGGATCTTGAAGTTCACCTTGA
TGCCGTTCTTCTGCTTGTGCGCCATGATATAGACGTTGTGGCTGTTGTAGT
TGTA CTCCAGCTTGTGCCCCAGGATGTTGCCGTCCTCCTTGAAGTCGATGC

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Fig. 22c (con't)

CCTTCAGCTCGATGCGGTTACACAGGGTGTGCGCCCTCGAACTTCACCTCGG
CGCGGGTCTTGTAAGTTGCCGTCGTCCTTGAAGAAGATGGTGGCGCTCCTGGA
CGTAGCCTTCGGGCGATGGCGGACTTGAAGAAGTCGTGCTGCTTCATGTGG
TCGGGGTAGCGGGCGAAGCACTGCAGGCCGTAGCCGAAGGTGGTCACGA
GGGTGGGCCAGGGCACGGGCAGCTTGCCGGTGGTGCAGATGAACTTCAGG
GTCAGCTTGCCGTAGGTGGCATCGCCCTCGCCCTCGCCGGACACGCTGAA
CTTGTGGCCGTTTACGTCGCGCGTCCAGCTCGACCAGGATGGGACACCACCC
GGTGAACAGCTCCTCGCCCTTGCTCACCATGGTGGCGTTAGCTTGATTTGA
CAGTGGCTGGGGGTGCGCCGCGGGGTTTTATAGGAAGCCACAGCGGCCA
CTCGAGCCATAAAAGGCAACTTTAGGAACGGCGGGGGGTGATTGGATTGCG
AGTCGTTTTATTACCGGCCTTGCCGCACAGTGCAGCATTTTTTTTACCCCT
CTCCCTCCTTTTTCGGGGGAAAAAAAAAAAAAAAAAAAAAAAAAAGGAGA
AGAGAAAAAAAAAGCGAGCGAGAGAGAAAGCGAGATTGAGGAAGAGGATG
AAGAGTTTGGCGATGGGTGCTGGTTCCGTAGGCCAGATGGACAAGAATA
GCCCCCGCCCTTGCGGACAGTATCCCATTCAGTGACTCAGATCAGATCAA
GCGGCCGCCAGTGTGATGGATATCTGCAGAATTCCAGCACACTGGCGGCC
GTTACTAGTGGATCCGTACAAGACAGTTAGCTAGTTGGCAAAACCAAGGA
GAATTCTGTGACAAGGGAACTCAGGACAAATCCTGCTAGGCAGTTCTGG
AGGGGAAGCGCCCTGCGCCTGCAGTACTGACCTGTGACCATAGCCAGGGC
AGCAATGCAGGAGAAGGCAGAAATGTCGATGTTTCATATTCTGCAAGTTGG
AGGAGAATTCAACAATGGAATCAATCCATTCCCCAAAGCCACGAACGCAT
TGCAACCTGTGCAAGACCACCCCATTGCAAAAGATGAGTTTACCCTCCAC
TGGGTGGACCTGCAATTAATACCAAAGAGAGAGAGGGGAGAAAAAGAG
AGAGAGAAAAGCTAAACAATAATTACTTGAAGAGCAATAAATGAGGGA
TTTAAGAGTCACCTAATTACTGAAGAGTTAATTAAAATGTAGATCCAGTG
GACCTTGAAAGGGTTTAATTTTATAACAATCAAGAACGCCCCCTATCCCA
CCTCCATTCCATTTCATCCAAGGCTTCTGGGCTCGCTTCTTCTCGTCTTTTT
TGTTTTCTTTCTTTTTCTTCTTTCTCCGACTTCCATTTCCTATTCTGTCTTT
TCTCTACCCACCCCTCTGGTTTCCCTTCCCTCCCTTTCTTTTCTTTCTTGATT
TCTCTACAGCCTCCCTGGATTGTCTCCTCCCTCCCTTATTACCTGTATGCT
AATCGAAGGACAAACAGTTCTAAGAAAGCTGATTCAAAAAGCAGGTCTTG
GTCGGCTTTGGGCAGGTCTGCGAAGCCAGGGATCTTCTCTGCCAGCCCC
GGATGATCTCCATGGAGCCAGTCAGGAGATCATAGAATTGCTGGATATGC
TGGGTGTCATCTCCACTCATTTGATAGTCAGGGTTCGCCTGGAACCTGGAAT
TTCATTTTAAAAAGCACTTAATGAGGTTCTCTAAAATATATAACCCGTGAA
ATTGCTAACCCCGTTTCTAATAGGGGAGCCAGGTTTTTATAACAATTAAC
CTCTCTCTGACCAGTAAGGAAATTAGATGTTCCGGGGCAATTAATTCAATT
AGGGATGGTGCTACGAGGTGCTGCTTTAAATATGTAAATTGTCATTTCCA
TACAGACTAAATACAGTGCCATCCAGCCCTGGGAAACGTTCACTCTTATCT
CCACAAAACAATTGACATGTTAGTATTCATGCTAGTCCCAGAGTGGGCCT
CGAGCTGAGACGCCCTTTTGCAAATCTTAATAAAATTGCAGTCCCTACCAG
GTTTGCTCAACATACTTCCCTCCAATTAAGCCCGCATATTTTTTCACAGCTG
GAGTAAAAGGATCTGACCCTTGATCCCCCACCCTACTGGCATCTTTACAC
CCTCTCCTTCCCTTCCCTGACCCCCAGACAGCCCCACATCCTTCCCCAGC
ACAGTGCCAGGAAGGATGAGGATTAAAGCATCTATCTCTATGGAGGACTG
GGAATAAAGTAGATTGGGAAGGGGGAGAGTTTGCACAGCCCTGGATTTC
ATGGTAGAGGCACTGGTGTATATGGAAGAGGAGGGGCGATGGGGTAGTG
GGGTAGTGGGAATTCACACAGCTTCAAACCCTGTGGCGTGTCCCTCTCCTC
CTTCTCCATCCTGTCTCATGTCTATGCCCCAGCTACATGGATTTGTCTG
AAGATCTGAATCTTGAGGCCCTGGCCAGAGCTGCGAGGCATATACAGCCT

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Fig. 22d (con't)

TGCTTGCCTTTCTTTACCCCCGTTGAATCTGAGAGTTAATGACGGATGTGG
GGAGGGGTCCTGCCCATCTGTTCGGTTTGTCCACATGATATCCCCCCCCGCCA
GCTTCTTACCCTGGAATAGTCCAGGCTGGTCATAGCCGGGTTGGAGTCGA
CATGGGCCCTGACGAGGGCACTGATCAGACTCACCGGGGGCGAAGGGGG
AGAGGGCTCCTGTGGGCTCTTCGGTTTCGAGGGCAAACGACCTCTCCGGC
CTTTTAAACTGTCTGTGCGAACCCTGCAAAGGAAGAGCCCTGTTAGCGC
CGCTTTTCCGAGCCCAGGCCAGCTGCTGCCTCGGTCCCTCCCCGGGGGAAG
GCCGCAGCCGCGGGGCACCAGGCTGAGCGGCTGAGGGCCCCAGTGCTTGT
AAAGCCTTCACTGACTAGAAGCATTAAAAAATGCGGGGTTATTTTATGTCT
TCCTCCAAATGGGTTCGTATAGTTAAAGGAGAGAAGGGCCTGGCGGCTTTC
TCTAGGGAAGGCCGGGCAAGCAGGCAGCTGCAGGGTCCTGGAGGCCATA
CTGAGGGGGAGTCGGAGATCCCCAGCACCGGGAAGTGGAACGTGATGCT
GGAGTATGAGCAGTGGTTTCTTAAAGGCGCAAACCTGGAGGGTCGGCAGCT
CCCCTCAGCCTACCTTCTTTGGTACCCGGCGATACAGTCAACTGTCTTTGA
CCTTTGTTACTACTCTCTTCCGATGATGATGTCGCACTTATTCTATGCTGTC
TCAATGTTAGAGGCATATCAGTCTCCACTGAAGCCAATCTATCTGTGACGG
CATCTTTATTCACATTATCTTGTACAAATAATCCTGTTAACAATGCTTTTAT
ATCCTGTAAAGAATCCATTTTCAAATCATGTCAAGGTCTTCTCGAGGAAA
AATCAGTAGAAATAGCTGTTCCAGTCTTTCTAGCCTTGATTCCACTTCTGT
CAGATGTGCCCTAGTCAGCGGAGACCTTTTGGTTTTGGGAGAGTAGCGAC
ACTCCCAGTTGTTCTTCAGACACTTGGCGCACTTCGGTTTTTCTTTGGAGC
ACTTGAGCTTTTTAAGTCGGCAAATATCGCATGCTTGTTTCGATAGAAGACA
GTAGCTTCATGGTGGCAAGCTTAAGTTTAAACGCTAGAACTAGTGGATCC
GGATAAGCCAGTAAGCAGTGGGTTCTCTAGTTAGCCAGAGAGCTCTGCTT
ATATAGACCTCCCACCGTACACGCCTACCGCCCATTGCGTCAATGGGGC
GGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTTTGGTGCCAAAACAA
ACTCCCATTGACGTCAATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAA
ACCGCTATCCACGCCCATTGATGTACTGCCAAAACCGCATCACCATGGTA
ATAGCGATGACTAATACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAA
GGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGACGT
CAATAGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGG
GCAGTTTACCGTAAATACTCCACCCATTGACGTCAATGGAAAGTCCCTATT
GGCGTTACTATGGGAACATACGTCAATTATTGACGTCAATGGGCGGGGGTC
GTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAGTTATGTAACGCGGA
ACTCCATATATGGGCTATGAACTAATGACCCCGTAATTGATTACTATTAAT
AACTAGTCAATAATCAATGTCAACCCCGGGCTGCAGGAATTCTACCGGGT
AGGGGAGGCGCTTTTCCCAAGGCAGTCTGGAGCATGCGCTTTAGCAGCCC
CGCTGGCACTTGGCGCATCACAAGTGGCCTCTGGCCTCGCACACATTCCAC
ATCCACCGGTAGCGCCAACCGGCTCCCTTCTTTGGTGGCCCCCTTCGCGCCA
CCTTCTACTCCTCCCCTAGTCAGGAAGTTCCCCCCCCGCCCCGAGCTCGCG
TCGTGCAGGACGTGACAAATGGAAGTAGCACGTCTCACTAGTCTCGTGCA
GATGGACAAGCACCGCTGAGCAATGGAAGCGGGTAGGCCTTTGGGGCAG
CGGCAATAGCAGCTTGGCTCCTTCGCTTTCTGGGCTCAGAGGCTGGGAA
GGGGTGGGTCCGGGGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGGCGGG
CGCGAAGGTCTCCGGACCCGGCATTC

GR region of homology (SEQ ID NO:74)

CGTACAAGACAGTTAGCTAGTTGGCAAAACCAAGGAGAATTCTGTGACAA
GGGAAACTCAGGACAAATCCTGCTAGGCAGTTCTGGAGGGGAAGCGCCCT
GCGCCTGCAGTACTGACCTGTGACCATAGCCAGGGCAGCAATGCAGGAGA
AGGCAGAAATGTCGATGTTTCATATTCTGCAAGTTGGAGGAGAATTCAACA
ATGGAATCAATCCATTCCCCAAAGCCACGAACGCATTGCAACCTGTGCAA
GACCACCCCATTTGCAAAAGATGAGTTTACCCTCCACTGGGTTGGACCTGC
AATTAATACCAAAGAGAGAGAGGGGAGAAAAAGAGAGAGAGAAAAAGCT
AAACAATAATTACTTGAAGAGCAATAAATGAGGGATTAAAGAGTCACCT
AATTACTGAAGAGTTAATTAATAATGTAGATCCAGTGGACCTTGAAAGGGT
TTAATTTTCATAACAATCAAGAACGCCCCCTATCCCACCTCCATTCCATTCA
TCCAAGGCTTCTGGGCTCGCTTCTTCTCGTCTTTTTTTTGTCTTTCTTTT
CTTCCTTTCTCCGACTTCCATTTCTCTATTCTGTCTTTTTCTCTACCCACCT
CTGGTTTCCCTTCCCTCCCTTTCTTTTCTTTCTTGATTTCTCTCACAGCCTCC
CTGGATTGTCTCCTCCCTCCCTTATTACCTGTATGCTAATCGAAGGACAAA
CAGTTCTAAGAAAGCTGATTCAAAAAGCAGGTCTTGGTTCGGCTTTGGGCA
GGTCTGCGAAGCCAGGGATCTTCTCTGCCCAGCCCCGGATGATCTCCATG
GAGCCAGTCAGGAGATCATAGAATTGCTGGATATGCTGGGTGTCATCTCC
ACTCATTTGATAGTCAGGGTTCGCCTGGAAGTGAATTTTCATTTTAAAAAG
CACTTAATGAGGTCTCTATAAATATATAACCCGTGAAATTGCTAACCCCGT
TTCTAATAGGGGAGCCAGGTTTTTATAACAATTAAACCTCTCTCTGACCAG
TAAGGAAATTAGATGTTCCGGGGCAATTAATTCAATTAGGGATGGTGCTA
CGAGGTCGCTGCTTTAAATATGTAAATTGTCAATTTCCATACAGACTAAATA
CAGTGCCATCCAGCCCTGGGAAACGTTCACTCTTATCTCCACAAAACAATT
GACATGTTAGTATTCATGCTAGTCCCAGAGTGGGCCTCGAGCTGAGACGC
CCTTTTGCAAATCTTAATAAAATTGCAGTCCCTACCAGGTTTGCTCAACAT
ACTTCCTCCAATTAAAGCCCGCATATTTTTCACAGCTGGAGTAAAAGGATC
TGACCACTTGATCCCCCACCCTACTGGCATCTTTACACCCTCTCCTTCCCTT
CCCTGACCCCCAGACAGCCCCCACATCCTTCCCCAGCACAGTGCCAGGAA
GGATGAGGATTAAAGCATCTATCTCTATGGAGGACTGGGAATAAAGTAGA
TTGGGAAGGGGGAGAGTTTGCACAGCCCCTGGATTTTCATGGTAGAGGCAC
TGGTGTATATGGAAGAGGAGGGGGCGATGGGGTAGTGGGGTAGTGGGAAT
TCACACAGCTTCAAACCTGTGGCGTGTCCCTCTCCTCCTTCCATCCTG
TCCTCATGTCTATGCCCCAGCTACATGGATTTGTCTGAAGATCTGAATCT
TGAGGCCCTGGCCAGAGCTGCGAGGCATATACAGCCTTGCTTGCCTTTCTT
TACCCCCGTTGAATCTGAGAGTTAATGACGGATGTGGGGAGGGGGTCCTGC
CCATCTGTCGGTTTGTCCACATGATATCCCCCCCCGCCAGCTTCTTACCCTG
GAATAGTCCAGGCTGGTCATAGCCGGGTTGGAGTCGACATGGGCCCTGAC
GAGGGCACTGATCAGACTCACCGGGGGCGAAGGGGGAGAGGGCTCCTGT
GGGCTCTTCGGTTTTCGAGGGCAAACGACCTCTCCGGCCTTTTAAACTGTCT
GTGCGAACCCTGCAAAGGAAGAGCCCTGTTAGCGCCGCTTTTCCGAGCC
CAGGCCAGCTGCTGCCTCGGTCCCTCCCCGGGGAAGGCCGCAGCCGCGG
GGCACCAGGCTGAGCGGCTGAGGGCCCCAGTGCTTGTAAGCCCTTCACTG
ACTAGAAGCATTAATAAATGCGGGGTTATTTTATGTCTTCCCTCAAATGGG
TCGTATAGTTAAAGGAGAGAAGGGCCTGGCGGCTTTCTCTAGGGAAGGCC
GGGCAAGCAGGCAGCTGCAGGGTCTTGAGGCCATACTGAGGGGGAGTC
GGAGATCCCCAGCACCGGGAAGTGGAACGTGATGCTGGAGTATGAGCAG
TGGTTTCTTAAAGGCGCAAACCTGGAGGGTTCGGCAGCTCCCTCAGCCTAC
CTTCTTTG

pCDGal4-DBD-GR (SEQ ID NO:75)

TAACAGGATTATTTGTACAAGATAATGTGAATAAAGATGCCGTCACAGAT
AGATTGGCTTCAGTGGAGACTGATATGCCTCTAACATTGAGACAGCATAG
AATAAGTGCGACATCATCATCGGAAGAGAGTAGTAACAAAGGTCAAAGA
CAGTTGACTGTATCGCCGGGTACCATTTCAGCAGGCCACTACAGGAGTCTC
ACAAGAAACCTCTGAAAATCCTGGTAACAAAACAATAGTTCCTGCAACGT
TACCACAACCTCACCCCTACCCTGGTGTCACTGTTGGAGGTTATTGAACCTG
AAGTGTTATATGCAGGATATGATAGCTCTGTTCCAGACTCAACTTGGAGG
ATCATGACTACGCTCAACATGTTAGGAGGGCGGCAAGTGATTGCAGCAGT
GAAATGGGCAAAGGCAATACCAGGTAAGATGCAAAACATAAAAGAGCAA
CTATATAAACCTTTGTGTTTTCTTCAGCAAAAACACTTTGGCTTTTATATCA
TCGTGAGCCCATGGCTTATCTTGTCTCTTCTTCTAGTTCTGGGGACTATGAAGG
GGAGAGTCAGGTGAATACAGGTGATAGGGAGTTTATAATAAAACATTTAC
ATTACTCCCTGCTTTTCAAATCATTATGCACAGGATGGTAATTTTCACATAG
GATGATGTAATATCAGAATTCAAGTTACAAGACTCACTCAAACTCCTTTT
ACACTGAAGTTTGGGGAAAGAAAATGTTTTTGTAGTTAATTCCATTTGTTTTT
CTTCATTGTGCCACTTTTAAAAATCAGGTTGTTTGTAGATTGGTAAACAT
CAAGTATGTTGATTGTCAAAATTTGTACTAAAGTAGAATGATTTTAAACCT
TCACTAAATGAAATGCTACACATTGAATGTAATTTTAAAGATAATTTTAA
TAAAGTTACCCTATTGGAATTTGGTGTGGAATGGCAGAGGTCAATGTTA
GTGTCAGCTCTGACTTTAAAGACAGGGAATTGACAAGCCTGTGTTCACGC
AAATAGTTAGGGAGAGAGCAAGAAAGTAACCTGACCTCCTGTTCATCCTTG
TTTTATTAAGGGGGAAAGAGGTGTGAATAGCAGGGCAAATGTTTTGCTTA
ACTCATTGATTAATACCTCAAGCCAAGATTCTTTTCTGTTTTTTTAAATCA
ATACATAATAGTTGTACATATTTACTGTACATATTTATATTTAGGGGGTAC
ATGTAATAATTTAATAAAAAGCATAACAACGTGTAAGGATCAAATCAGAGTA
ACTGGGATATCCATCACCTCAAACATTTGTTTGGGGAACATTCCAAATCTT
CTCTTTTAGCTATTTTGAATATAAAGTAAATTATTGTAACTATAGTCAT
CCTGTTGTGCTACTGAACACTAAACTTATTTCTTCTAACTGTATTTTTTGCA
CCCGTCAACCATTCCCGCTTCATCCCCATCACCACTATCTTCCCGGTCACT
GGTAACCGCCAAGCCAAGAATTTTGGCTATTTTACTATTTAGTTTCATGTTT
ACTTAAGCAGACAGAGGTGACAAAACCTGGCTTTTTTTTTTTTTTTTACATT
AAAAGCTATTAAAAAGCACCTAGGGGGCTGGGTGCGATGGCTCACGCCTG
TAATCCCAGCACTTTGGGAAGCCCAGGTGGGTGGATCAGTTGAGGTCAGG
AGTTCGAGACCAGCCTGGCCAGCATAGCAAAACCCCATCTCTACTAAAAT
TACAAAAATTAGCCGGGCATGGTGGTATGAATCTGTATTCTAGCTACTTG
GGAGGCTGGCACTGAGAATCACTTGAACCCGGGAGGCGGAGGTTGCAGT
GAGCCGAGATGGCACCATTGCACTCCAGCCTGGGTGACAGAGCAAGACTT
TGTCTCAATTAAAAAATAAAAAAAAAAAAAAAAAACACAAGAGGGTTTGTG
AGTCTTAAAGTGTGAGATGACAGAAGAAAACCTGTGTCTACCTAGTATTTA
ATTTCCATTTTCTGTTAGGGGTGCCCTTGTTTTGACAGGGCTAATTGATCTC
ATTGCTCCTTGGCAATTCCCACAGAGATGATCTTCTGAAGAGTGTTGCCTC
ATACCTTTATTTCTCTTAATTCAGGTTTCAGGAACCTACACCTGGATGACC
AAATGACCCTACTGCAGTACTCCTGGATGTTTCTTATGGCATTGCTCTGG
GGTGGAGATCATATAGACAATCAAGTGCAAAACCTGCTGTGTTTTGCTCCTG
ATCTGATTATTAATGAGTAAGTTGTATGTGTGTCAATTTCCCTGTATTCATA
GGGTATCTTTAACCAGCTGATGTTTTCTGATTGACTGCTATTGTGATAAT
TCAGGACTGAAACAATCCTACTAGGTATCTAGGATCTAGGCAAACCTGGAA
ATAGAGTTATGAGTGCTTGGGGCAGGACAAGTGTAATGTAAAGCAAATGT

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Fig. 24b (con't)

ACATGTGGCATTATTACTGTCCCAGGACATGTTTGAGGATATTTAACAGCA
TATCTGAGGTTAGTAAAGTCTGTGCGCAAGCAACAAGGAATCTTACTGTGA
TATCATTTACATAACCCTATTCCAGAAAGAAAAAGGAGCATGGTAAAACT
CATGTGGATTTCAGTGGGGACAATTGTAGATGAGGATATCTAGGCTGATGG
GGTGGGACATATGGACCCAGACACAAGAGGTATCTCTTTGCATGGCAAGG
CTCACCCAGTGTCTGTGGTTTAAGAATATGGGAACAAATTTGTTTTGTTTA
ACTGAGAGAAGACCAAGCCTTTAAGATTTTATAAATCAGCTATTCTCTTAT
CCTCTAAGCTTATTCTGTGTCTGCGAAATACTTCAGGTGTCCATTTCCCTT
TACCTCATTGCAGTTGTTTCCTCACTCGTTTTCTCCCTCCAGTGTAACGTTT
ATCATGTTGGCTAATGTTTGCTTCCTCAAGCACAGTCTGACTGCATCACAT
ATCTCCCCAGTACACAGATTGTCTTCAGTATCTTCCCACTGACCTCCAGT
ACATATTCTGCATGATTTTCAGACTTTCCAGAATCTGACCTCACTTCCTCTCC
CATTGTTTTCTTCACACACTCTTCATTCCCATCCATCCTTTCCAGCATACT
CTTAGACTCTTGGTGTTCACATCACCAGATACACAGCAGAGAAGTCACAT
CCTAGTTACTCTCACTTTCTACCTTGTATTACTACTTTTCGTACCCCTAGCT
TATTGCTATTAGTACAATGTAAACAGGGAGTTTACACACACATACCCCTG
GTCTAAGAAGAATAAAAAATGAAGGAGATTTCTGTTTGTATAGAAAACAG
AAGTCACCTTGACTTTTATTGCCAAAAAGAGGACTGTTCAAACACTACTGCAT
CACAATGTAACAAGATTAGGTAGTTGGATCCAATTTTAAATTAACCTGGTA
AATATATTTAGTTTCTGGGGAAACTGAAGACATTATTACTCATCATAATCC
TACCATGCTGTTTAAAAAATACCATGTTGGCAGTATTTGTTTTTTAGTCAC
TTTCTAATATGTAATTTGAAGGCATTTAAGTGAATTAAGGCATAAACA
GATTTGTATGAAACACCAACTTATCCTGGTTTATAAACTAACCTAATTTA
GGGTTTTTATTATTAGGGCATTTCAGATTTAGCTTTAAGCAGTCACAGCAAA
ATCTAATCATGCCACATACATTCCCTTACATAAAGTGGGATTTATAATTTTT
TTTCTCAACAGATTTACATTAGTTTCATTTTCATTAAGGGATATGTACTTC
CTATTCTTGTGTTCTCATGCTGCTGCCTGCGGCCGCTCGAGTCTAGAGGGC
CCGTTTAAACCCGCTGATCAGCCTCGACTGTGCCCTTCTAGTTGCCAGCCAT
CTGTTGTTTGCCCCCTCCCCCGTGCCCTTCCTTGACCCTGGAAGGTGCCACTC
CCACTGTCCTTTCCTAATAAAATGAGGAAATTGCATCGCATTGTCTGAGTA
GGTGTCACTTCTATTCTGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGA
GGATTGGGAAGACAATAGCAGGCATGCTGGGGATGCGGTGGGCTCTATGG
CTTCTGAGGCGGAAGAACCAGCTGGGGCTCTAGGGGGTATCCCCACGCG
CCCTGTAGCGGCGCATTAAAGCGCGGCGGGTGTGGTGGTTACGCGCAGCGT
GACCGCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTTTCGCTTTCTTCCC
TTCCTTTCTCGCCACGTTTCGCCGGCTTTCCCCGTCAGCTCTAAATCGGGG
GCTCCCTTTAGGGTTCCGATTTAGTGCTTTACGGCACCTCGACCCCAAAAA
ACTTGATTAGGGTGATGGTTCACGTAGTGGGCCATCGCCCTGATAGACGG
TTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTT
CCAAACTGGAACAACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATA
AGGGATTTTGCCGATTTTCGGCCTATTGGTTAAAAAATGAGCTGATTTAACA
AAAATTTAACGCGAATTAATTCTGTGGAATGTGTGTTCAGTTAGGGTGTGG
AAAGTCCCCAGGCTCCCCAGCAGGCAGAAGTATGCAAAGCATGCATCTCA
ATTAGTCAGCAACCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGA
AGTATGCAAAGCATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCT
AACTCCGCCCATCCCGCCCCTAACTCCGCCCAGTTCCGCCCATTCTCCGCC
CCATGGCTGACTAATTTTTTTTATTTATGCAGAGGCCGAGGCCGCTCTGC
CTCTGAGCTATTCCAGAAGTAGTGAGGAGGCTTTTTTGGAGGCCCTAGGCTT
TTGCAAAAAGCTCCCGGGAGCTTGTATATCCATTTTCGGATCTGATCAGCA
CGTGATGAAAAAGCCTGAACTCACCGCGACGTCTGTGAGAAGTTTCTGA

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Fig. 24c (con't)

TCGAAAAGTTCGACAGCGTCTCCGACCTGATGCAGCTCTCGGAGGGCGAA
GAATCTCGTGCTTTTCAGCTTCGATGTAGGAGGGCGTGGATATGTCCTGCGG
GTAAATAGCTGCGCCGATGGTTTTCTACAAAGATCGTTATGTTTATCGGCAC
TTTGCATCGGCCGCGCTCCCGATTCCGGAAGTGCTTGACATTGGGGAATTC
AGCGAGAGCCTGACCTATTGCATCTCCCGCCGTGCACAGGGTGTACAGTT
GCAAGACCTGCCTGAAACCGAACTGCCCCGCTGTTCTGCAGCCGGTCGCGG
AGGCCATGGATGCGATCGCTGCGGCCGATCTTAGCCAGACGAGCGGGTTC
GGCCCATTCGGACCGCAAGGAATCGGTCAATACTACATGGCGTGATTT
CATATGCGCGATTGCTGATCCCCATGTGTATCACTGGCAAACCTGTGATGGA
CGACACCGTCAAGTGCCTCCGTGCGGCAGGCTCTCGATGAGCTGATGCTTTG
GGCCGAGGACTGCCCCGAAGTCCGGCACCTCGTGCACGCGGATTTCCGGCT
CCAACAATGTCCTGACGGACAATGGCCGCATAACAGCGGTCAATTGACTGG
AGCGAGGCGATGTTTCGGGGATTCCCAATACGAGGTGCGCAACATCTTCTT
CTGGAGGCCGTGGTTGGCTTGTATGGAGCAGCAGACGCGCTACTTCGAGC
GGAGGCATCCGGAGCTTGCAGGATCGCCGCGGCTCCGGGCGTATATGCTC
CGCATTTGGTCTTGACCAACTCTATCAGAGCTTGGTTGACGGCAATTTTCGAT
GATGCAGCTTGGGCGCAGGGTCGATGCGACGCAATCGTCCGATCCGGAGC
CGGGACTGTGCGGCGTACACAAATCGCCCGCAGAAGCGCGGCCGTCTGGA
CCGATGGCTGTGTAGAAGTACTCGCCGATAGTGGAACCGACGCCCCAGC
ACTCGTCCGAGGGCAAAGGAATAGCACGTGCTACGAGATTTTCGATTCCAC
CGCCGCCTTCTATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCCGG
CTGGATGATCCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCCCACCC
CAACTTGTTTTATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCAC
AAATTTACAAATAAAGCATTTTTTTTTCACTGCATTCTAGTTGTGGTTTGTCC
AACTCATCAATGTATCTTATCATGTCTGTATACCGTCGACCTCTAGCTAG
AGCTTGGCGTAATCATGGTCATAGCTGTTTCTGTGTGAAATTGTTATCCG
CTCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTG
GGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCC
CGCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCC
AACGCGCGGGGAGAGGCGGTTTTCGTATTGGGCGCTCTTCCGCTTCCTCG
CTCACTGACTCGCTGCGCTCGGTCTGCTCGGCTGCGGCGAGCGGTATCAGCT
CACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGGATAACGCAGG
AAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAG
GCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAC
AAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAA
GATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGA
CCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGG
CGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTGCTTC
GCTCCAAGCTGGGCTGTGTGCACGAACCCCCCGTTCAGCCCGACCGCTGC
GCCTTATCCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTA
TCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGT
AGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTA
GAAGAACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA
AAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGG
TTTTTTTGTGTGCAAGCAGCAGATTACGCGCAGAAAAAAAGGATCTCAAG
AAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAAC
CACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAG
ATCCTTTTAAATTAATAAATGAAGTTTTAAATCAATCTAAAGTATATATGAG
TAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCA
GCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGTCGTGTAG

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Fig. 24d (con't)

ATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGAT
ACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGC
CAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCCTCC
ATCCAGTCTATTAATTGTTGCCGGAAGCTAGAGTAAGTAGTTTCGCCAGTT
AATAGTTTTCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGC
TCGTCTGTTTGGTATGGCTTCATTACGCTCCGGTTCCCAACGATCAAGGCGA
GTTACATGATCCCCCATGTTGTGCAAAAAAGCGGTTAGCTCCTTCGGTCTT
CCGATCGTTGTCAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTTATG
GCAGCACTGCATAATTCTCTTACTGTTCATGCCATCCGTAAGATGCTTTTCT
GTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCG
ACCGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATA
GCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAA
CTCTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGT
GCACCCAAGTATCTTCAGCATCTTTTACTTTTACCAGCGTTTCTGGGTGA
GCAAAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACA
CGGAAATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATT
ATCAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAA
ATAAACAAATAGGGGTTCCGCGCACATTTCCCCGAAAAGTGCCACCTGAC
GTCGACGGATCGGGAGATCTCCCGATCCCTATGGTGCACTCTCAGTACA
ATCTGCTCTGATGCCGCATAGTTAAGCCAGTATCTGCTCCCTGCTTGTGTG
TTGGAGGTCTGCTGAGTAGTGCGCGAGCAAAATTTAAGCTACAACAAGGCA
AGGCTTGACCGACAATTGCATGAAGAATCTGCTTAGGGTTAGGCGTTTTG
CGCTGCTTCGCGATGTACGGGGCCAGATATACGCGTTGACATTGATTATTGA
CTAGTTATTAATAGTAATCAATTACGGGGTTCATTAGTTCATAGCCCATATA
TGGAGTTCCGCGTTACATAACTTACGGTAAATGGCCCGCCTGGCTGACCG
CCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTA
ACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTA
AACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCC
CTATTGACGTCAATGACGGTAAATGGCCCGCCTGGCATTATGCCCAGTAC
ATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATC
GCTATTACCATGGTGATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATA
GCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATGACGTCAATGG
GAGTTTGTGTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACA
ACTCCGCCCCATTGACGCAAAATGGGCGGTAGGCGTGTACGGTGGGAGGTC
TATATAAGCAGAGCTCTCTGGCTAACTAGAGAACCCACTGCTTACTGGCTT
ATCGAAATTAATACGACTCACTATAGGGGAGACCCAAGCTGGCTAGCGTTT
AACTTAAGCTTGCCACCATGAAGCTACTGTCTTCTATCGAACAAGCATGC
GATATTTGCCGACTTAAAAAGCTCAAGTGCTCCAAAGAAAAACCGAAGTG
CGCCAAGTGTCTGAAGAACAACCTGGGAGTGTGCTACTCTCCCAAAACCA
AAAGGTCTCCGCTGACTAGGGCACATCTGACAGAAGTGGAATCAAGGCTA
GAAAGACTGGAACAGCTATTTCTACTGATTTTTCTCGAGAAGACCTTGAC
ATGATTTTGAAAATGGATTCTTTACAGGATATAAAAGCATTGT

pKI-Gal4-DBD-GR (SEQ ID NO:76)

CAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTTAC
TTTACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGCCGCAA
AAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCTTCCTT
TTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGCGGATAC
ATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGCACATT
TCCCCGAAAAGTGCCACCTAAATTGTAAGCGTTAATATTTTGTAAATTC
GCGTTAAATTTTTGTAAATCAGCTCATTTTTTAACCAATAGGCCGAAATC
GGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTGAGTGT
TGTTCCAGTTTGAACAAGAGTCCACTATTAAAGAACGTGGACTCCAACG
TCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTGAACCA
TCACCCTAATCAAGTTTTTTGGGGTCGAGGTGCCGTAAAGCACTAAATCG
GAACCCTAAAGGGAGCCCCCGATTTAGAGCTTGACGGGGAAAGCCGGCG
AACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGCTAGG
GCGCTGGCAAGTGTAGCGGTCACGCTGCGCGTAACCACCACACCCGCCGC
GCTTAATGCGCCGCTACAGGGCGCGTCCCATTTCGCCATTCAGGCTGCGCA
ACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCCAGCTG
GCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAACGCCAGGGTT
TTCCCAGTCACGACGTTGTAAAACGACGGCCAGTGAGCGCGCGTAATACG
ACTCACTATAGGGCGAATTGGAGCTCCACCGCGGTGCGGCCGGGCCATGC
AGGCCACGACATGATAAGATACATTGATGAGTTTGGACAAACCACAATA
GAATGCAGTGAAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTT
TATTTGTAACCATTATAAGCTGCAATAAACAAGTTCTTGTACAGCTCGTCC
ATGCCGAGAGTGATCCCGGCGGCGGTACGAACCTCAGCAGGACCATGTG
ATCGCGCTTCTCGTTGGGGTCTTTGCTCAGGGCGGACTGGTAGCTCAGGTA
GTGGTTGTCGGGCAGCAGCACGGGGCCGTCGCCGATGGGGGTGTTCTGCT
GGTAGTGGTCGGCGAGCTGCACGCTGCCGTCCTCGATGTTGTGGCGGATC
TTGAAGTTCACCTTGATGCCGTTCTTCTGCTTGTCGGCCATGATATAGACG
TTGTGGCTGTTGTAGTTGTACTCCAGCTTGTGCCCCAGGATGTTGCCGTCC
TCCTTGAAGTCGATGCCCTTCAGCTCGATGCGGTTACACAGGGTGTGCCCC
TCGAACTTCACCTCGGCGCGGGTCTTGTAGTTGCCGTCGTCCTTGAAGAAG
ATGGTGCGCTCCTGGACGTAGCCTTCGGGCATGGCGGACTTGAAGAAGTC
GTGCTGCTTCATGTGGTTCGGGGTAGCGGGCGAAGCACTGCAGGCCGTAGC
CGAAGGTGGTCACGAGGGTGGGGCCAGGGCACGGGCAGCTTGCCGGTGGT
GCAGATGAACTTCAGGGTCAGCTTGCCGTAGGTGGCATCGCCCTCGCCCT
CGCCGGACACGCTGAACTTGTGGCCGTTTACGTCGCCGTCCAGCTCGACC
AGGATGGGCACCACCCCGGTGAACAGCTCCTCGCCCTTGCTCACCATGGT
GGCGTTAGCTTGATTTGACAGTGGCTGGGGGTGCGCCGCCGGGTTTTATA
GGAAGCCACAGCGGCCACTCGAGCCATAAAAGGCAACTTTAGGAACGGC
GGGGGGTGATTGGATTCGAGTCGTTTATTCACCGGCCTTGCCGCACAGTGC
AGCATTTTTTTTACCCCTCTCCCCTCCTTTTTGCGGGGGGAAAAAAAAAAAA
AAAAAAAAAAGGAGAAGAGAAAAAAGCGAGCGAGAGAGAAAGCGAG
ATTGAGGAAGAGGATGAAGAGTTTGGCGATGGGTGCTGGTTCGGTAGGCC
CAGATGGACAAGAATAGCCCCCGCCCTTGCGGACAGTATCCCATTCAGTG
ACTCAGATCAGATCAAGCGGCCGCAGGCAGCAGCATGAGAACACAAGAA
TAGGAAGTACATATCCCTTAATGAAAATGAACTAATGTAAATCTGTTGA
GGAAAAAAATTATAAATCCCACTTTATGTAAGGAATGTATGTGGCATGA
TTAGATTTTGCTGTGACTGCTTAAAGCTAAATCTGAATGCCCTAATAATAA
AAACCCTAAATTAGGTTAGTTTTATAAACCAGGATAAGTTGGTGTTTCATA

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Fig. 25b (con't)

CAAATCTGTTTATGCTTTTAAATTCCACTTAAATGCCTTCAAATTACATATTA
GAAAGTGACTAAAAACAAATACTGCCAACATGGTATTTTTTAAACAGCA
TGGTAGGATTATGATGAGTAATAATGTCTTCAGTTTCCCCAGAACTAAAT
ATATTTACCAGTTAATTTAAAATTGGATCCAACCTACCTAATCTTGTTACAT
TGTGATGCAGTAGTTTGAACAGTCCTCTTTTGGCAATAAAAGTCAAGGTG
ACTTCTGTTTTCTATACAAACAGAAATCTCCTTCATTTTTTATTCTTCTTAG
ACCAGGGGTATGTGTGTGTGAACCTCCCTGTTTACATTGTACTAATAGCAAT
AAGCTAGGGGTACGAAAAGTAGTAATACAAGGTAGAAAGTGAGAGTAAC
TAGGATGTGACTTCTCTGCTGTGTATCTGGTGATGTGAACACCAAGAGTCT
AAGAGTATGCTGGAAAGGATGGATGGGAATGAAGAGTGTGTGAAGGAAA
ACAATGGGAGAGGAAGTGAGGTCAGATTCTGGAAAGTCTGAAATCATGC
AGAATATGTACTGGAGGGTCAGTGGGAAGATACTGAAGACAATCTGTGTA
CTGGGGAGATATGTGATGCAGTCAGACTGTGCTTGAGGAAGCAAACATTA
GCCAACATGATGAACGTTACACTGGAGGGAGAAAACGAGTGAGGAAACA
ACTGCAATGAGGTAAGGGGAAATGGACACCTGAAGTATTTTCGCAGACACA
GGAATAAGCTTAGAGGATAAGAGAATAGCTGATTTATAAAATCTTAAAGG
CTTGGTCTTCTCTCAGTTAAACAAAACAAATTTGTTCCCATATTCTTAAAC
CACAGACACTGGGTGAGCCTTGCCATGCAAAGAGATACCTCTTGTGTCTG
GGTCCATATGTCCCACCCCATCAGCCTAGATATCCTCATCTACAATTGTCC
CCACTGAATCCACATGAGTTTTACCATGCTCCTTTTTCTTTCTGGAATAGG
GTTATGTAAATGATATCACAGTAAGATTCCTTGTTGCTTGCGACAGACTTT
ACTAACCTCAGATATGCTGTAAATATCCTCAAACATGTCCTGGGACAGTA
ATAATGCCACATGTACATTTGCTTTACATTACACTTGTCTGCCCCAAGCA
CTCATAACTCTATTTCCAGTTTGCCTAGATCCTAGATACCTAGTAGGATTG
TTTCAGTCCTGAATTATCACAATAGCAGTCAATCAGGAAAACATCAGCTG
GTTAAAGATACCCTATGAATACAGGGAAAATGACACACATACAACCTTACT
CATTAAATAATCAGATCAGGAGCAAAACACAGCAGGTTTGCACCTTGATTGT
CTATATGATCTCCACCCCAGAGCAAATGCCATAAGAAACATCCAGGAGTA
CTGCAGTAGGGTCATTTGGTCATCCAGGTGTAAGTTCCTGAAACCTGAATT
AAGAGAAATAAAGGTATGAGGCAACACTCTTCAGAAGATCATCTCTGTGG
GAATTGCCAAGGAGCAATGAGATCAATTAGCCCTGTCAAACAAGGGCAC
CCCTAACAGAAAATGGAAATTAATACTAGGTAGACACAGTTTTCTTCTG
TCATCTGACACTTTAAGACTCACAAACCCTCTTGTGTTTTTTTTTTTTTTT
TTTTTTAATTGAGACAAAGTCTTGCTCTGTACCCAGGCTGGAGTGCAATG
GTGCCATCTCGGCTCACTGCAACCTCCGCCTCCCGGGTTCAAGTGATTCTC
AGTGCCAGCCTCCCAAGTAGCTAGGAATACAGATTCATACCACCATGCCC
GGCTAATTTTTGTAAATTTTAGTAGAGATGGGGTTTTGCTATGCTGGCCAGG
CTGGTCTCGAACTCCTGACCTCAACTGATCCACCCACCTGGGCTTCCCAA
GTGCTGGGATTACAGGCGTGAGCCATCGCACCCAGCCCCCTAGGTGCTTTT
TAATAGCTTTTAATGTAAAAAAGCCAGTTTTGTACCTC
TGTCTGCTTAAGTAAACATGAACATAAGTAAATAGCCAAAATCTTG
GCTTGGCGGTTACCAGTGACCGGGAAAGATAGTGGTGATGGGGATGAAGC
GGGAATGGTTGACGGGTGCAAAAATACAGTTAGAAGAAATAAGTTTTAGT
GTTCAGTAGCACAACAGGATGACTATAGTTAACAATAATTTACTTTATATT
TCAAAATAGCTAAAAGAGAAGATTTGGAATGTTCCCCAAACAATGTTTG
AGGTGATGGATATCCCAGTTACTCTGATTTGATCCTTACACGTTGTATGCT
TTTATTAAATTATTACATGTACCCCTAAATATAAATATGTACAGTAAATA
TGTACAACCTATTATGTATTGATTTTAAAAAACAGAAAAGAATCTTGGCTTG
AGGTATTAATCAATGAGTTAAGCAAAACATTTGCCCTGCTATTCACACCTC
TTTCCCCCTTAATAAAACAAGGATGACAGGAGGTCAGGTTACTTTCTTGCT

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Fig. 25c (con't)

CTCTCCCTAACTATTTGCGTGAACACAGGCTTGTCAATTCCCTGTCTTTAA
AGTCAGAGCTGACACTAACATTGACCTCTGCCATTCCACACCAAATTCCA
ATAGGGTAACCTTTTATTTAAAATTATCTTTAAAATTACATTCAATGTGTAG
CATTTCATTTAGTGAAGGGTTAAAATCATTCTACTTTAGTACAAATTTTGA
CAATCAACATACTTGATGTTTACCAATCTTACAAACAACCTGATTTTAAA
AGTGGCACAATGAAGGAAAACAAATGGAATTAATAAAAAACATTTTCTTT
CCCCAACTTCAGTGTAAGGAGTTTTGAGTGAGTCTTGTAACCTTGAATT
CTGATATTACATCATCCTATGTGAAATTACCATCCTGTGCATAATGATTTG
AAAAGCAGGGAGTAATGTAAATGTTTTATTATAAACTCCCTATCACCTGTA
TTCACCTGACTCTCCCCTTCATAGTCCCCAGAACTAAGAGAAACAAGATA
AGCCATGGGCTCACGATGATATAAAAGCCAAAGTGTTTTTGTGAAGAAA
ACACAAAGGTTTATATAGTTGCTCTTTTATGTTTTGCATCTTACCTGGTATT
GCCTTTGCCCATTTCCTGCTGCAATCACTTGCCGCCCTCCTAACATGTTG
AGCGTAGTCATGATCCTCCAAGTTGAGTCTGGAACAGAGCTATCATATCCT
GCATATAACACTTCAGGTTCAATAACCTCCAACAGTGACACCAGGGTAGG
GGTGAGTTGTGGTAACGTTGCAGGAACCTATTGTTTTGTTACCAGGATTTTC
AGAGGTTTCTTGAGACTCCTGTAGTGGCCTGCTGAATGGTACCCGGCG
ATACAGTCAACTGTCTTTGACCTTTGTTACTACTCTCTTCCGATGATGATGT
CGCACTTATTCTATGCTGTCTCAATGTTAGAGGCATATCAGTCTCCACTGA
AGCCAATCTATCTGTGACGGCATCTTTATTACATTATCTTGTACAAATAA
TCCTGTAAACAATGCTTTTATATCCTGTAAAGAATCCATTTTCAAATCAT
GTCAAGGTCTTCTCGAGGAAAAATCAGTAGAAATAGCTGTTCCAGTCTTTC
TAGCCTTGATTCCACTTCTGTGAGATGTGCCCTAGTCAGCGGAGACCTTTT
GGTTTTGGGAGAGTAGCGACACTCCAGTTGTTCTTCAGACACTTGGCGCA
CTTCGGTTTTTTCTTTGGAGCACTTGAGCTTTTTTAAGTCGGCAAATATCGCA
TGCTTGTTTCGATAGAAGACAGTAGCTTCATGGTGGCAAGCTTAAGTTTAA
ACGCTAGAACTAGTGGATCCGGATAAGCCAGTAAGCAGTGGGTTCTCTAG
TTAGCCAGAGAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGC
CCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTT
GATTTTGGTGCCAAAACAACTCCCATTTGACGTCAATGGGGTGGAGACTT
GGAAATCCCCGTGAGTCAAACCGCTATCCACGCCCATTTGATGTACTGCCA
AAACCGCATCACCATGGTAATAGCGATGACTAATACGTAGATGTACTGCC
AAGTAGGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGC
CATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACT
TGATGTACTGCCAAGTGGGCAGTTTACCGTAAATACTCCACCCATTGACGT
CAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGTCAATTATTGAC
GTCAATGGGCGGGGGTCTGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGT
AAGTTATGTAACGCGGAACCTCATATATGGGCTATGAACTAATGACCCCG
TAATTGATTACTATTAATAACTAGTCAATAATCAATGTCAACCCCGGGCTG
CAGGAATTCTACCGGGTAGGGGAGGCGCTTTTCCCAAGGCAGTCTGGAGC
ATGCGCTTTAGCAGCCCCGCTGGCACTTGGCGCATCACAAGTGGCCTCTG
GCCTCGCACACATTCCACATCCACCGGTAGCGCCAACCGGCTCCCTTCTTT
GGTGGCCCCCTTCGCGCCACCTTCTACTCCTCCCCTAGTCAGGAAGTTCCCC
CCCGCCCCGAGCTCGCGTCGTGCAGGACGTGACAAATGGAAGTAGCACG
TCTCACTAGTCTCGTGCAGATGGACAAGCACCGCTGAGCAATGGAAGCGG
GTAGGCCTTTGGGGCAGCGGCCAATAGCAGCTTGGCTCCTTCGCTTCTGG
GCTCAGAGGCTGGGAAGGGGTGGGTCCGGGGGCGGGGCTCAGGGGCGGGC
TCAGGGGCGGGGCGGGCGGAAGGTCCCTCCGGACCCGGCATTCTGCACGC
TTCAAAGCGCACGTCTGCCGCGCTGTTCTCCTCTTCCTCATCTCCGGGCC
TTCGACCTGCATGAAAAAGCCTGAACTCACCGCGACGTCTGTGAGAAGT

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Fig. 25d (con't)

TTCTGATCGAAAAGTTTCGACAGCGTCTCCGACCTGATGCAGCTCTCGGAG
GGCGAAGAATCTCGTGCTTTTCAGCTTTCGATGTAGGAGGGCGTGGATATGT
CCTGCGGGTAAATAGCTGCGCCGATGGTTTCTACAAAGATCGTTATGTTTA
TCGGCACTTTGCATCGGCCGCGCTCCCGATTCCGGAAGTGCTTGACATTGG
GGAATTCAGCGAGAGCCTGACCTATTGCATCTCCCGCCGTGCACAGGGTG
TCACGTTGCAAGACCTGCCTGAAACCGAACTGCCCGCTGTTCTGCAGCCG
GTCGCGGAGGCCATGGATGCGATCGCTGCGGCCGATCTTAGCCAGACGAG
CGGGTTTCGGCCCATTCGGACCGCAAGGAATCGGTCAATACACTACATGGC
GTGATTTTCATATGCGCGATTGCTGATCCCCATGTGTATCACTGGCAAACCTG
TGATGGACGACACCGTCAGTGCGTCCGTCGCGCAGGCTCTCGATGAGCTG
ATGCTTTGGGCGGAGGACTGCCCGAAGTCCGGCACCTCGTGCACGCGGA
TTTCGGCTCCAACAATGTCCTGACGGACAATGGCCGCATAACAGCGGTCA
TTGACTGGAGCGAGGCGATGTTTCGGGGATTCCCAATACGAGGTCGCCAAC
ATCTTCTTCTGGAGGCCGTGGTTGGCTTGTATGGAGCAGCAGACGCGCTAC
TTCGAGCGGAGGCATCCGGAGCTTGCAGGATCGCCGCGGCTCCGGGCGTA
TATGCTCCGCATTGGTCTTGACCAACTCTATCAGAGCTTGGTTGACGGCAA
TTTCGATGATGCAGCTTGGGCGCAGGGTCGATGCGACGCAATCGTCCGAT
CCGGAGCCGGGACTGTGCGGCGTACACAAATCGCCCGCAGAAGCGCGGC
CGTCTGGACCGATGGCTGTGTAGAAGTACTCGCCGATAGTGGAACCGAC
GCCCCAGCACTCGTCCGAGGGCAAAGGAATGCCTGAGAAAGGAAGTGAG
CTGTAAAGGCTGAGCTCTCTCTGACGTATGTAGCCTCTGGTTAGCTTCG
TCACTCACTGTTCTTGACTCAGCATGGCAATCTGATGAAATCCCAGCTGTA
AGTCTGCATAAATTGATGATCTATTAACAATAAAGATGTCCACTAAAAT
GGAAGTTTTTTACTGTCATACTTTGTAAAGAAGGGTGAGAACAGAGTACCT
ACATTTTGAATGGAAGGATTGGAGCTACGGGGGTGGGGGTGGGGGTGGG
ATTAGATAAATGCCTGCTCTTTACTGAAGGCTCTTTACTATTGCTTTATGAT
AATGTTTCATAGTTGGATATCATAATTTAAACAAGCAAAACCAAATTAAG
GGCCAGCTCATTCCCTCCACTCATGATCTATAGATCTATAGATCTCTCGTGG
GATCATTGTTTNTCTGATCCACTGGAAGCTTATCGATACCGTCGACCTCGA
GGGGGGGCCCGGTACCCAGCTTTTGTTCCTTTAGTGAGGGTTAATTGCGC
GCTTGGCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGTTATCCGC
TCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGG
GGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCC
GCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCA
ACGCGCGGGGAGAGGCGGTTTTCGTATTGGGCGCTCTTCCGCTTCCTCGCT
CACTGACTCGCTGCGCTCGGTTCGTTTCGGCTGCGGCGAGCGGTATCAGCTC
ACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAACGCAGG
AAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAG
GCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCAC
AAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAA
GATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGA
CCCTGCCGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGG
CGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCTTC
GCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTTCAGCCCGACCGCTGC
GCCTTATCCGGTAACATCGTCTTGAGTCCAACCCGGTAAGACACGACTTA
TCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGT
AGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTA
GAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGA
AAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGG
TGGTTTTTTTGTGTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTC

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Fig. 25e (con't)

AAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAA
AACTCACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCAC
CTAGATCCTTTTAAATTA AAAATGAAGTTTAAATCAATCTAAAGTATATA
TGAGTAAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTAT
CTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGTCGTG
TAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAAT
GATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACC
AGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCC
TCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTCCGCCA
GTTAATAGTTTGC GCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTCA
CGCTCGTCGTTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGG
CGAGTTACATGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGT
CCTCCGATCGTTGTCAGAAGTAAGTTGGCCGCAGTGTTATCACTCATGGTT
ATGGCAGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTT
TCTGTGACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCG
GCGACCGAGTTGCTCTTGCCCCGGCGTCAATACGGGATAATACCGCGCCAC
ATAGCAGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGA
AAACTCTCAAGGATCTTACCGCTGTTGAGATC

MR region of homology (SEQ ID NO:77)

TTTGTGGTGCTTAAAAAATGAGCATGTGGTGCCTCCTATGGTCCAGGTAA
TACCAGACTTTGATAAAGTTCTATGGTAGAACATGTTCCCTGGCACCTGT
CCTCCCTGCCTGACAGACTCAAGCTCTTCTTTTGTCTTTATTTTATTTATTT
ATTTTTTAAGATGGATTCTCATTCTGTGCGCCAGGCTGGAGTTCAGTGACA
TGATATTGGCTCACTGCATCCCAGGTTTCAAGCGATTCTCCTGCCTCAGGC
TCACAAGTAGCTGGGGTTACAGGTGCCTGCCAGGACGCCCAACTAAATTT
TGTATTTTTAGTAGAGACAGGGTTTCATGATGGTGGCAAGGCTGGTCTCAA
ATTCCTGACCTCAAGTGATCTGCTTGCCTCAGCCTCCCAAAGTCTGGGATT
ACAGGCATGGGCCACTGCACCAGGCCTTCTTTTGTTTTTATCACCTCCCC
CATCTCCAGGGGCATCATGTTATTTTTCTGCCTGTGGAGTTTCACTGGGCA
AGCTCCTCTTCAAAGAATCAGTCAGTGGAGCTTTCCCCAACTTTTACAGCT
GCTGTCTGACCACAGGTAATCTAAGAACTGCTTTAGATTAATGAACTGG
GACAATGTAATGGCAATTTCTAAGTGATGTTTCTGTAGATTAAGAGGGGC
CTTATTAATTAATAACCATGAAACAAAAAATGACTAAAATAGGAATT
CCAGGGACAATTTAAAGGGTGCTGGGGGCCAGGTGATTATTTTTTAGACA
GAAGAGTCATTCCAGGTCTCTTACAACCTACTTGCTAGGCCTTGCCTTACT
TGGTCTACACTTAGATTAACCCTCGTTATGAGCCGCTAATAATGTGCTCAA
CTTGTGATTTTCATGAACAGAATGTATTTTACCTTATTAATATTTTTGGATGA
AATTTTCCATTTTGATCAACATAAGAAGTGATGTCATTTTTTTTATTTTA
ATTTCTTTTTTTTTTTTGGAGACAGAGTCTCACTCTGTTGCTCAGGCTGGAGT
ATAGTGGTGGGATCTCGGCTCACTGCAGCCTCTGCCGCCAGGTTCAAGC
GATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACCTGCCAC
CAAGCAGGACTAATTTTTGTGTTTTTAGTAGAAACGGGGTTTCACCATCTT
GGCTAGGCTGGTCTTGAACCTCCTGACCTCGTGATCCATCTGCCTCAGTAAG
CCACCTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTG
CGCCCAGCCGTATCTGTCAATTTTAACAATAAAATCCTTAACCCTGCATTCT
CGGAAGAAATGAGCACATTAACCATATTTTTCCTATACACTTGATCAATTT
GTTATCAATTTAAAAAATCTGATATCAGGATTTTCATAGAACGCAAACCTCCT
CCTGCATGGTTGGAGATGGCGAAGTCAGTTGCCCAGACTTGTTAAGTTCA
GGATGCAGCCTGTGAAAGGAGAGGCAATCCTACCTGGAAGTACCTTTGCC
CACTTCACGACTTGGATCATCTGTTTGCCTGCTAAGCGGTTGAGCGTGAGAG
AGCAGATTTTCGGCTGTATCTGGTTTTGAGCTGTCATAGCCTGCATATACA
ATTTCAAGTTCAATGTTTTCAAGGACCATAACGGGGGAAGGTGTGAGCGC
TCGTGAGATTGTGGAGAGCTGAGGAACCAAGTGCTGTGTTGACCGAGGGTT
CTTTTGCAGGAGCGATGTACGTTGTCCCTTCCTCTGGGCTTTGCGGGGGTG
GGGGTGGGGGTGGGGGCTGCTGCTGTGGCTGCTCCTCGTGAATCCCTT
TCTTTTCATCTTTTGCATTACTTTTCTTGCTTTCATCACCAACCTATTTCTCA
TCTGCCTCCTCCCCTACTGAAACCCCTGTTTTCTTATTGCCAGAGAGAGCC
ATCTGTCAGAATATGGCTGTAGTTACTATCATAATTCAAATATTCCTTTT
AAGTATTTCTTGACCCAACAATTACAAAGAAGCACTGCTAGATACAAACA
TAAATAAAATGTGCTAATGAGGAATGCAAACAGTATTAAATGTAAACTT
AAAATAGGAAGGAATTTGTGGCCAAAGAAAAAAGTATTACGATTCTTTCA
GTCTTTTAAATGCATCATAAACTAAAAATGTTTTGCTACAGAATAACA
GTTTGGCTTCTTTTATGATGGCAAAGAAGGGTAATTACGATTGTCATGAAA
ACACATTGAGCAGCTGTATACTGTTAACAAAAGAACCATTATATGAGCTC
GTAAAAGCTGGCACTTTATATATTACATTTCCCTAGAAATTAGATTGTCTT
CCCAATTGGAGTCGATACCAAAGAGACTGTTTTCTATTAATTGTGGCTTT
GTACCAGTCAATTTTCAGAGCCAACCTGGATCATCTTTCTTTTGGGATATAT

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Fig. 26b (con't)

CCCACATATTATTATGTGGAATTTATATATACTGATTTATATACACTCAGA
AGCATACAGTATAATGTTGCAAAGAGTAATTTTTTAAGTTCCCAGAGATCT
GTAAATTTTTAACGTTAAAAAATGCCAGTTTCAGTAGATTCTTTCACCAAC
GTACATCTGTTTAGAAATTACTGAAAGAAATCATAACGCATAACTCTGCA
GTTTATTTTATGAAGGCTAATTAATAGGTACTTACTCATTAAAGACTAGGT
CTGGTGCAAAATAGAGAAATTGGCTGTTTCGTATGTTTGTACGATCTCCAGC
TCAAGGCAAATGATGATAGACACATCCAAGAATACTGGATTAGGGTAATT
TGGTCCTCAAGAGGCAAGTTTTTAAATCCTGAAGAACAAAACAATTAATC
ACAGAAATACACTTAGCATTTAAGTACATTCCAGGAAGATGCTTCTTAAG
TCAACCCCAAACAGCCACCTTTCTTTCACTTTTCTCTTTTCTGACAGACTCA
AATCAATTCAACAGTCATTTACAGAGTGCCCACCACTGGCCCAGTCCTGTT
CCACATTTCACTTTAAATTCATCCTAAATTCTAGATGAGGGTAAACTGCCA
GGGCAAACCTAAAATTGCAAAGTTCAGCAAGTTTCAGTGTGGATGACAGCC
TAAAACCCTTGGTTAGATTGAGAGAATTTGTATTAACTGTAAAACCTTGCT
TCGTCCCACCCACAATTAATAACACTAAAATAAAGGGTAATTTAATAACT
GTCAAACCCTGTGTATCTGCAATAATGGTGGGAGATTCATTGTTTCATGAG

pCDGal4-DBD-MR (SEQ ID NO:78)

AGCACTGCATAATTCTCTTACTGTCATGCCATCCGTAAGATGCTTTTTCTGT
GACTGGTGAGTACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGAC
CGAGTTGCTCTTGCCCGGCGTCAATACGGGATAATACCGCGCCACATAGC
AGAACTTTAAAAGTGCTCATCATTGGAAAACGTTCTTCGGGGCGAAAAC
CTCAAGGATCTTACCGCTGTTGAGATCCAGTTCGATGTAACCCACTCGTGC
ACCCAACCTGATCTTCAGCATCTTTTACTTTTACCAGCGTTTCTGGGTGAGC
AAAAACAGGAAGGCAAAATGCCGCAAAAAAGGGAATAAGGGCGACACG
GAAATGTTGAATACTCATACTCTTCCTTTTTCAATATTATTGAAGCATTTAT
CAGGGTTATTGTCTCATGAGCGGATACATATTTGAATGTATTTAGAAAAAT
AAACAAATAGGGGTTCCGCGCACATTTCCCGAAAAGTGCCACCTGACGT
CGACGGATCGGGAGATCTCCCGATCCCCTATGGTGCACCTCTCAGTACAAT
CTGCTCTGATGCCGCATAGTTAAGCCAGTATCTGCTCCCTGCTTGTGTGTT
GGAGGTCGCTGAGTAGTGCGCGAGCAAAATTTAAGCTACAACAAGGCAA
GGCTTGACCGACAATTGCATGAAGAATCTGCTTAGGGTTAGGCGTTTTGC
GCTGCTTCGCGATGTACGGGCCAGATATACGCGTTGACATTGATTATTGAC
TAGTTATTAATAGTAATCAATTACGGGGTCATTAGTTCATAGCCCATATAT
GGAGTTCGCGGTTACATAACTTACGGTAAATGGCCCCGCCTGGCTGACCGC
CCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTA
ACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTA
AACTGCCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCC
CTATTGACGTCAATGACGGTAAATGGCCCCGCCTGGCATTATGCCCAGTAC
ATGACCTTATGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATC
GCTATTACCATGGTGTATGCGGTTTTTGGCAGTACATCAATGGGCGTGGATA
GCGGTTTGACTCACGGGGATTTCCAAGTCTCCACCCCATTGACGTCAATGG
GAGTTTGTTTTGGCACCAAAATCAACGGGACTTTCCAAAATGTCGTAACA
ACTCCGCCCCATTGACGCAAAATGGGCGGTAGGCGTGTACGGTGGGAGGTC
TATATAAGCAGAGCTCTCTGGCTAACTAGAGAACCCACTGCTTACTGGCTT
ATCGAAATTAATACGACTCACTATAGGGAGACCCAAGCTGGCTAGCGTTT
AACTTAAGCTTGCCACCATGAAGCTACTGTCTTCTATCGAACAAGCATGC
GATATTTGCCGACTTAAAAAGCTCAAGTGCTCCAAAGAAAAACCGAAGTG
CGCCAAGTGTCTGAAGAACAACCTGGGAGTGTGCTACTCTCCAAAACCA
AAAGGTCTCCGCTGACTAGGGCACATCTGACAGAAGTGGAATCAAGGCTA
GAAAGACTGGAACAGCTATTTCTACTGATTTTTCTCGAGAAGACCTTGAC
ATGATTTTGAAAATGGATTCTTTACAGGATATAAAAGCATTGTTAACAGG
ATTATTTGTACAAGATAATGTGAATAAAGATGCCGTCACAGATAGATTGG
CTTCAGTGGAGACTGATATGCCTCTAACATTGAGACAGCATAGAATAAGT
GCGACATCATCATCGGAAGAGAGTAGTAACAAAGGTCAAAGACAGTTGA
CTGTATCGCCGGGTACCTTTGTGGTGCTTAAAAAATGAGCATGTGGTGCCT
CCTATGGTCCAGGTTAATACCAGACTTTGATAAAGTTCTATGGTAGAACAT
GTTTCCCTGGCACCTGTCCTCCCTGCCTGACAGACTCAAGCTCTTCTTTTGT
TCTTTATTTTATTTATTTATTTTTTAAGATGGATTCTCATTCTGTGCGCCAG
GCTGGAGTTCAGTGACATGATATTGGCTCACTGCATCCCAGGTTTCAAGCG
ATTCTCCTGCCTCAGGCTCACAAGTAGCTGGGGTTACAGGTGCCTGCCAG
GACGCCCAACTAAATTTTGTATTTTATAGTAGAGACAGGGTTTCATGATGGT
GGCAAGGCTGGTCTCAAATTCCTGACCTCAAGTGATCTGCTTGCCCTCAGCC
TCCCAAAGTCTGGGATTACAGGCATGGGGCACTGCACCAGGCCTTCTTTTG
TTTTTTATCACCTCCCCCATCTCCAGGGGCATCATGTTATTTTTCTGCCTGT
GGAGTTTCACTGGGCAAGCTCCTCTTCAAAGAATCAGTCAGTGGAGCTTTC

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Fig. 27b (con't)

CCCAACTTTTACAGCTGCTGTCTGACCACAGGTAATCTAAGAACTGCTTT
AGATTAATGAACTGGGACAATGTAATGGCAATTTCTAAGTGATGTTTCTGT
AGATTAAGAGGGGCCCTTATTAATTAAATACCATGAAACAAAAAATGA
CTAAATAGGAATTCCAGGGACAATTTAAAGGGTGCTGGGGGCCAGGTGA
TTATTTTTTAGACAGAAGAGTCATTCCAGGTCTCTTACAACCTTACTTGCTA
GGCCTTGCCTTACTTGGTCTACACTTAGATTAACCCTCGTTATGAGCCGCT
AATAATGTGCTCAACTTGTGATTTTCATGAACAGAATGTATTTTACCTTATT
AATATTTTTGGATGAAATTTTCCATTTTGATCAACATAAGAAGTGATGTC
ATTTTTTTTATTTTTAATTTCTTTTTTTTTTTTGAGACAGAGTCTCACTCTGT
TGCTCAGGCTGGAGTATAGTGGTGGGATCTCGGCTCACTGCAGCCTCTGCC
GCCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTA
CAGGCACCTGCCACCAAGCAGGACTAATTTTTGTGTTTTTAGTAGAAACG
GGGTTTCACCATCTTGGCTAGGCTGGTCTTGAACCTCCTGACCTCGTGATCC
ATCTGCCTCAGTAAGCCACCTGCCTTGGCCTCCCAAAGTGCTGGGATTACA
GGCGTGAGCCACTGCGCCCAGCCGTATCTGTCATTTTAACAATAAAATCCT
TAACCCTGCATTCTCGGAAGAAATGAGCACATTAACCATATTTTTCTATA
CACTTGATCAATTTGTTATCAATTTAAAAAATCTGATATCAGGATTTTATA
GAACGCAAACCTCCTCCTGCATGGTTGGAGATGGCGAAGTCAGTTGCCAG
ACTTGTTAAGTTCAGGATGCAGCCTGTGAAAGGAGAGGCAATCCTACCTG
GAAGTACCTTTGCCCACTTCACGACTTGGATCATCTGTTTGCCTGCTAAGC
GGTTGAGCGTGGAGAGCAGATTTTCGGCTGTATCTGGTTTTGAGCTGTCAT
AGCCTGCATATACAATTTCAAGTTCAATGTTTTCAAGGACCATAACGGGG
GAAGGTGTGAGCGCTCGTGAGATTGTGGAGAGCTGAGGAACCAAGTGCTGT
GTTGACCGAGGGTTCTTTTGCAGGAGCGATGTACGTTGTCCCTTCCTCTGG
GCTTTGCGGGGGTGGGGGTGGGGGTGGGGGCTGCTGCTGCTGTGGCTGCT
CCTCGTGAATCCCTTTCTTTTCATCTTTTGCATTACTTTTCTTGCTTTCATCA
CCAACCTATTTCTCATCTGCCTCCTCCCCTACTGAAACCCCTGTTTTCTAT
TGCCAGAGAGAGCCATCTGTCAGAATATGGCTGTAGTTACTATCATAATTC
AAATATTCCCTTTTAAGTATTTCTTGACCCAACAATTACAAAGAAGCACTG
CTAGATACAAACATAAATAAAATGTGCTAATGAGGAATGCAAACAGTATT
AAAATGTAAACTTAAATAGGAAGGAATTTGTGGCCAAAGAAAAACTGA
TTACGATTCTTTCAGTCTTTTAAATGCATCATAAACTAAAAATGTTTTG
CTACAGAATAACAGTTTGGCTTCTTTTATGATGGCAAAGAAGGGTAATTA
CGATTGTCATGAAAACACATTGAGCAGCTGTATACTGTTAACAAAAGAAC
CATTATATGAGCTCGTAAAAGCTGGCACTTTATATATTCACATTTCTAGA
AATTAGATTGTCTTCCCAATTGGAGTCGATACCAAAGAGACTGTTTTCTA
TTAATTGTGGCTTTGTACCAGTCAATTTTCAGAGCCAACCTGGATCATCTTT
CTTTTGGGATATATCCACATATTATTATGTGGAATTTATATATACTGATTT
ATATACACTCAGAAGCATAACAGTATAATGTTGCAAAGAGTAATTTTTTAA
GTTCCCAGAGATCTGTAAATTTTTAACGTTAAAAAATGCCAGTTTCAGTAG
ATTCTTTCACCAACGTACATCTGTTTAGAAATTACTGAAAGAAATCATAAC
GCATAACTCTGCAGTTTATTTTATGAAGGCTAATTAATAGGTACTTACTCA
TTAAAGACTAGGTCTGGTGCAAATAGAGAAATTGGCTGTTTCGTATGTTT
GTACGATCTCCAGCTCAAGGCAAATGATGATAGACACATCCAAGAATACT
GGATTAGGGTAATTTGGTCCTCAAGAGGCAAGTTTTTAAATCCTGAAGAA
CAAAACAATTAATCACAGAAATACACTTAGCATTTAAGTACATTCCAGGA
AGATGCTTCTTAAGTCAACCCCAAACAGCCACCTTTCTTTCACTTTTCTCTT
TTCTGACAGACTCAAATCAATTCAACAGTCATTTACAGAGTGCCCACT
GGCCAGTCCTGTTCCACATTTCACTTTAAATTCATCCTAAATTCATAGATG
AGGGTAAACTGCCAGGGCAAACATAAATTGCAAAGTTCAGCAAGTTTCAG

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Fig. 27c (con't)

TGTGGATGACAGCCTAAAACCCTTGGTTAGATTGAGAGAATTTGTATTAA
CCTGTAAAACCTTGCTTCGTCCCACCCACAATTAATAACACTAAAATAAAG
GGTAATTTAATAACTGTCAAACCCTGTGTATCTGCAATAATGGTGGGAGA
TTTCATTGTTTCATGAGGCGGCCGCTCGAGTCTAGAGGGCCCGTTTAAACCC
GCTGATCAGCCTCGACTGTGCCTTCTAGTTGCCAGCCATCTGTTGTTTGCC
CCTCCCCCGTGCCTTCCTTGACCCTGGAAGGTGCCACTCCCCTGTCCTTT
CCTAATAAAAATGAGGAAATTGCATCGCATTGTCTGAGTAGGTGTCATTCTA
TTCTGGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGATTGGGAAGA
CAATAGCAGGCATGCTGGGGATGCGGTGGGCTCTATGGCTTCTGAGGCGG
AAAGAACCAGCTGGGGCTCTAGGGGGTATCCCCACGCGCCCTGTAGCGGC
GCATTAAGCGCGGGCGGGTGTGGTGGTTACGCGCAGCGTGACCGCTACACT
TGCCAGCGCCCTAGCGCCCGCTCCTTTTCGCTTTCTTCCCTTCCTTTCTCGCC
ACGTTTCGCCGGCTTTCCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGG
TTCCGATTTAGTGCTTTACGGCACCTCGACCCCAAAAACTTGATTAGGGT
GATGGTTCACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTTCGCCCTTTG
ACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCCAAACTGGAACA
ACACTCAACCCTATCTCGGTCTATTCTTTTGATTTATAAGGGATTTTGCCG
ATTTTCGGCCTATTGGTTAAAAAATGAGCTGATTTAACAAAAATTTAACGC
GAATTAATTCTGTGGAATGTGTGTGTCAGTTAGGGTGTGGAAAGTCCCCAGG
CTCCCCAGCAGGCAGAAAGTATGCAAAGCATGCATCTCAATTAGTCAGCAA
CCAGGTGTGGAAAGTCCCCAGGCTCCCCAGCAGGCAGAAAGTATGCAAAGC
ATGCATCTCAATTAGTCAGCAACCATAGTCCCGCCCCCTAACTCCGCCCATC
CCGCCCTAACTCCGCCCAGTTCCGCCCATCTCCGCCCATGGCTGACTA
ATTTTTTTTTATTTATGCAGAGGCCGAGGCCGCTCTGCCTCTGAGCTATTC
CAGAAAGTAGTGAGGAGGCTTTTTTGGAGGCCTAGGCTTTTGCAAAAAGCT
CCCGGGAGCTTGTATATCCATTTTCGGATCTGATCAGCACGTGATGAAAA
AGCCTGAACTCACCGCGACGTCTGTGCGAGAAGTTTCTGATCGAAAAGTTC
GACAGCGTCTCCGACCTGATGCAGCTCTCGGAGGGCGAAGAATCTCGTGC
TTTCAGCTTCGATGTAGGAGGGCGTGGATATGTCCTGCGGGTAAATAGCT
GCGCCGATGGTTTCTACAAAGATCGTTATGTTTATCGGCACCTTTCATCGG
CCGCGCTCCCGATTCCGGAAGTGCTTGACATTGGGGAATTCAGCGAGAGC
CTGACCTATTGCATCTCCCGCCGTGCACAGGGTGTACGTTGCAAGACCTG
CCTGAAACCGAACTGCCCCGCTGTTCTGCAGCCGGTCGCGGAGGCCATGGA
TGCGATCGCTGCGGCCGATCTTAGCCAGACGAGCGGGTTCGGCCCATTTCG
GACCGCAAGGAATCGGTCAATACTACATGGCGTGATTTTCATATGCGCG
ATTGCTGATCCCCATGTGTATCACTGGCAAACCTGTGATGGACGACACCGTC
AGTGCGTCCGTCGCGCAGGCTCTCGATGAGCTGATGCTTTGGGCCGAGGA
CTGCCCCGAAGTCCGGCACCTCGTGCACGCGGATTTTCGGCTCCAACAATG
TCCTGACGGACAATGGCCGCATAACAGCGGTCAATTGACTGGAGCGAGGCG
ATGTTTCGGGGATTCCCAATACGAGGTGCGCAACATCTTCTTCTGGAGGCCG
TGGTTGGCTTGTATGGAGCAGCAGACGCGCTACTTCGAGCGGAGGCATCC
GGAGCTTGCAGGATCGCCGCGGCTCCGGGCGTATATGCTCCGCATTGGTC
TTGACCAACTCTATCAGAGCTTGGTTGACGGCAATTTTCGATGATGCAGCTT
GGGCGCAGGGTCGATGCGACGCAATCGTCCGATCCGGAGCCGGGACTGTC
GGGCGTACACAAATCGCCCCGAGAAGCGCGGCCGTCTGGACCGATGGCTG
TGTAGAAGTACTCGCCGATAGTGGAACCGACGCCCCAGCACTCGTCCGA
GGGCAAAGGAATAGCACGTGCTACGAGATTTTCGATTCCACCGCCGCCTTC
TATGAAAGGTTGGGCTTCGGAATCGTTTTCCGGGACGCGCGCTGGATGAT
CCTCCAGCGCGGGGATCTCATGCTGGAGTTCTTCGCCACCCCAACTTGTT
TATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCA

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Fig. 27d (con't)

CAAATAAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCA
TCAATGTATCTTATCATGTCTGTATACCGTCGACCTCTAGCTAGAGCTTGG
CGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGTTATCCGCTCACAA
TTCCACACAACATACGAGCCGGAAGCATAAAGTGTAAGCCTGGGGTGCC
TAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTCACTGCCCCGCTTTC
CAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAATCGGCCAACGCGC
GGGGAGAGGCGGTTTTCGTATTGGGCGCTCTTCCGCTTCCTCGCTCACTGA
CTCGCTGCGCTCGGTTCGTTCGGCTGCGGCGAGCGGTATCAGCTCACTCAA
AGGCGGTAAATACGGTTATCCACAGAATCAGGGGATAACGCAGGAAAGAA
CATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTAAAAAGGCCGCG
TTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGCATCACAAAAT
CGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACTATAAAGATACC
AGGCGTTTTCCCCCTGGAAGCTCCCTCGTGCGCTCTCCTGTTCCGACCCTGC
CGCTTACCGGATACCTGTCCGCCTTTCTCCCTTCGGGAAGCGTGCGCTTT
CTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGTCGTTTCGCTCCA
AGCTGGGCTGTGTGCACGAACCCCCCGTTACGCCCCGACCGCTGCGCCTTAT
CCGGTAACTATCGTCTTGAGTCCAACCCGGTAAGACACGACTTATCGCCA
CTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGGTATGTAGGCG
GTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACACTAGAAGA
ACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAG
AGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTTTTTT
TGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAGGATCTCAAGAAGATC
CTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAACGAAAACCTCACGTT
AAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTT
TAAATTAAAAATGAAGTTTTAAATCAATCTAAAGTATATATGAGTAAACT
TGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCACCTATCTCAGCGATC
TGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGTCGTGTAGATAACT
ACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTGCAATGATACCGCG
AGACCCACGCTCACCGGCTCCAGATTTATCAGCAATAAACCAGCCAGCCG
GAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATCCGCCTCCATCCAG
TCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTTCGCCAGTTAATAGT
TTGCGCAACGTTGTTGCCATTGCTACAGGCATCGTGGTGTACGCTCGTCG
TTTGGTATGGCTTCATTCAGCTCCGGTTCCCAACGATCAAGGCGAGTTACA
TGATCCCCCATGTTGTGCAAAAAGCGGTTAGCTCCTTCGGTCCTCCGATC
GTTGTCAGAAGTAAGTT

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Fig. 28a

pKI-Gal4-DBD-MR (SEQ ID NO:79)

ATCGGACGATTGCGTCGCATCGACCCTGCGCCCAAGCTGCATCATCGAAATTGCCGT
CAACCAAGCTCTGATAGAGTTGGTCAAGACCAATGCGGAGCATATACGCCCCGAGC
CGCGGCGATCCTGCAAGCTCCGGATGCCTCCGCTCGAAGTAGCGCGTCTGCTGCTCC
ATACAAGCCAACCACGGCCTCCAGAAGAAGATGTTGGCGACCTCGTATTGGGAATC
CCCGAACATCGCCTCGCTCCAGTCAATGACCGCTGTTATGCGGCCATTGTCCGTCAG
GACATTGTTGGAGCCGAAATCCGCGTGCACGAGGTGCCGGACTTCGGGGCAGTCCT
CGGCCCAAAGCATCAGCTCATCGAGAGCCTGCGCGACGGACGCACTGACGGTGTCG
TCCATCACAGTTTGCCAGTGATACACATGGGGATCAGCAATCGCGCATATGAAATCA
CGCCATGTAGTGTATTGACCGATTCTTTGCGGTCCGAATGGGCCGAACCCGCTCGTC
TGGCTAAGATCGGGCCGAGCGATCGCATCCATGGCCTCCGCGACCGGCTGCAGAAC
AGCGGGCAGTTCGGTTTCAGGCAGGTCTTGCAACGTGACACCCTGTGCACGGCGGG
AGATGCAATAGGTCAGGCTCTCGCTGAATTCCCCAATGTCAAGCACTTCCGGAATCG
GGAGCGCGGCCGATGCAAAGTGCCGATAAACATAACGATCTTTGTAGAAACCATCG
GCGCAGCTATTTACCCGCAGGACATATCCACGCCCTCCTACATCGAAGCTGAAAGCA
CGAGATTCTTCGCCCTCCGAGAGCTGCATCAGGTGCGGAGACGCTGTCGAACCTTTTCG
ATCAGAACTTCTCGACAGACGTCGCGGTGAGTTCAGGCTTTTTTCATGCAGGTGCAA
GGCCCCGAGATGAGGAAGAGGAGAACAGCGCGGCAGACGTGCGCTTTTGAAGCGT
GCAGAATGCCGGGTCCGGAGGACCTTCGCGCCCCGCCCGCCCCCTGAGCCCCCCCCCT
GAGCCCCCCCCCGGACCCACCCCTTCCCAGCCTCTGAGCCCAGAAAGCGAAGGAGC
CAAGCTGCTATTGGCCGCTGCCCCAAAGGCCCTACCCGCTTCCATTGCTCAGCGGTGC
TTGTCCATCTGCACGAGACTAGTGAGACGTGCTACTTCCATTTGTCACGTCTGTCAC
GACGCGAGCTGCGGGGCGGGGGGGAACCTTCTGACTAGGGGAGGAGTAGAAGGTG
GCGCGAAGGGGGCCACCAAAGAAGGGAGCCGGTTGGCGCTACCGGTGGATGTGGAAT
GTGTGCGAGGCCAGAGGCCACTTGTGATGCGCCAAGTGCCAGCGGGGCTGCTAAAG
CGCATGCTCCAGACTGCCTTGGGAAAAGCGCCTCCCCTACCCGGTAGAATTCCTGCA
GCCCCGGGTTGACATTGATTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCA
TTAGTTCATAGCCCATATATGGAGTTCGCGTTACATAACTTACGGTAAATGGCCCCG
CCTGGCTGACCGCCCAACGACCCCCGCCCATTGACGTCAATAATGACGTATGTTCCC
ATAGTAACGCCAATAGGGACTTTCCATTGACGTCAATGGGTGGAGTATTTACGGTAA
ACTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTACGCCCCCTATTGAC
GTCAATGACGGTAAATGGCCCCGCTGGCATTATGCCCAGTACATGACCTTATGGGAC
TTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGCTATTACCATGGTGATGCGGT
TTTGGCAGTACATCAATGGGCGTGGATAGCGGTTTGACTCACGGGGATTTCGAAGTC
TCCACCCCATTGACGTCAATGGGAGTTTGTTTTGGCACCAAAATCAACGGGACTTTC
CAAAATGTCGTAACAACCTCCGCCCATTGACGCAAATGGGCGGTAGGCGTGTACGG
TGGGAGGTCTATATAAGCAGAGCTCTCTGGCTAACTAGAGAACCCACTGCTTACTGG
CTTATCCGGATCCACTAGTTCTAGCGTTTAACTTAAGCTTGCCACCATGAAGCTACT
GTCTTCTATCGAACAAGCATGCGATATTTGCCGACTTAAAAAGCTCAAGTGCTCCAA
AGAAAAACCGAAGTGCGCCAAGTGTCTGAAGAACAACCTGGGAGTGTCGCTACTCTC
CCAAAACCAAAAGGTCTCCGCTGACTAGGGCACATCTGACAGAAGTGGAATCAAGG
CTAGAAAGACTGGAACAGCTATTTCTACTGATTTTTCCTCGAGAAGACCTTGACATG
ATTTTGAAAATGGATTCTTTACAGGATATAAAAGCATTGTTAACAGGATTATTTGTA
CAAGATAATGTGAATAAAGATGCCGTCACAGATAGATTGGCTTCAGTGGAGACTGA
TATGCCTCTAACATTGAGACAGCATAGAATAAGTGCGACATCATCATCGGAAGAGA

METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS

Michael Allen Whitney

VPI/02-143 US2

Fig. 28b (con't)

G TAGTAACAAAGGTCAAAGACAGTTGACTGTATCGCCGGGTACCTTTGTGGTGCTTA
AAAAATGAGCATGTGGTGCCTCCTATGGTCCAGGTTAATACCAGACTTTGATAAAGT
TCTATGGTAGAACATGTTTCCCTGGCACCTGTCTCCTGCCTGACAGACTCAAGCT
CTTCTTTTGTTCCTTTATTTTATTTATTTATTTTAAAGATGGATTCTCATTCTGTGCGCC
AGGCTGGAGTTCAGTGACATGATATTGGCTCACTGCATCCCAGGTTTCAAGCGATTCT
TCCTGCCTCAGGCTCACAAGTAGCTGGGGTTACAGGTGCCTGCCAGGACGCCCAACT
AAATTTTGTATTTTATAGTAGAGACAGGGTTTCATGATGGTGGCAAGGCTGGTCTCAA
ATTCCTGACCTCAAGTGATCTGCTTGCCTCAGCCTCCCAAAGTCTGGGATTACAGGC
ATGGGCCACTGCACCAGGCCTTCTTTTGTTTTTATCACCTCCCCCATCTCCAGGGGC
ATCATGTTATTTTTCTGCCTGTGGAGTTTCACTGGGCAAGCTCCTCTTCAAAGAATCA
GTCAGTGGAGCTTTCCCCAACTTTTACAGCTGCTGTCTGACCACAGGTAATCTAAGA
AACTGCTTTAGATTAATGAACTGGGACAATGTAATGGCAATTTCTAAGTGATGTTTC
TGTAGATTAAGAGGGGGCCTTATTAATTAATAACCATGAAACAAAAAAATGACTA
AAATAGGAATTCCAGGGACAATTTAAAGGGTGCTGGGGGCCAGGTGATTATTTTTTA
GACAGAAGAGTCATTCCAGGTCTCTTACAACCTACTTGCTAGGCCTTGCCTTACTTG
GTCTACACTTAGATTAACCTCGTTATGAGCCGCTAATAATGTGCTCAACTTGTGATT
TCATGAACAGAATGTATTTTACCTTATTAATATTTTTGGATGAAATTTTCCATTTTGA
TCAACATAAGAAGTGATGTCATTTTTTTTATTTTTAATTTCTTTTTTTTTTGAGAC
AGAGTCTCACTCTGTTGCTCAGGCTGGAGTATAGTGGTGGGATCTCGGCTCACTGCA
GCCTCTGCCGCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGA
TTACAGGCACCTGCCACCAAGCAGGACTAATTTTTGTGTTTTTAGTAGAAACGGGGT
TTCACCATCTTGGCTAGGCTGGTCTTGAACCTCCTGACCTCGTGATCCATCTGCCTCAG
TAAGCCACCTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGCCG
CCAGCCGTATCTGTCAATTTTAACAATAAAATCCTTAACCCTGCATTCTCGGAAGAAA
TGAGCACATTAACCATATTTTTCTTATACACTTGATCAATTTGTTATCAATTTAAAAA
ATCTGATATCAGGATTTTATAGAACGCAAACTCCTCCTGCATGGTTGGAGATGGCGA
AGTCAGTTGCCCAGACTTGTTAAGTTCAGGATGCAGCCTGTGAAAGGAGAGGCAAT
CCTACCTGGAAGTACCTTTGCCCACTTCACGACTTGATCATCTGTTTGCCTGCTAAG
CGGTTGAGCGTGGAGAGCAGATTTTCGGCTGTATCTGGTTTTGAGCTGTCATAGCCT
GCATATACAATTTCAAGTTCAATGTTTTCAAGGACCATAACGGGGGAAGGTGTGAGC
GCTCGTGAGATTGTGGAGAGCTGAGGAACCAGTGCTGTGTTGACCGAGGGTTCTTTT
GCAGGAGCGATGTACGTTGTCCCTTCTCTGGGCTTTGCGGGGGTGGGGGTGGGGGT
GGGGGCTGCTGCTGCTGTGGCTGCTCCTCGTGAATCCCTTTCTTTTCATCTTTTGCAT
TACTTTTCTTGCTTTCATCACCAACCTATTTCTCATCTGCCTCCTCCCCCTACTGAAACC
CCTGTTTTCTTATTGCCAGAGAGAGCCATCTGTCAGAATATGGCTGTAGTTACTATC
ATAATTCAAATATTCCCTTTTAAGTATTTCTTGACCCAACAATTACAAAGAAGCACT
GCTAGATACAAACATAAATAAAATGTGCTAATGAGGAATGCAAACAGTATTAAAT
GTAAACTTAAATAGGAAGGAATTTGTGGCCAAAGAAAAACTGATTACGATTCTTTC
AGTCTTTTAAATGCATCATAAACTAAAAATGTTTTGCTACAGAATAACAGTTTGG
CTTCTTTTATGATGGCAAAGAAGGGTAATTACGATTGTCATGAAAACACATTGAGCA
GCTGTATACTGTTAACAAAAGAACCATTATATGAGCTCGTAAAAGCTGGCACTTTAT
ATATTCACATTTCTAGAAATTAGATTGTCTTCCCAATTGGAGTCGATACCAAAAAGA
GACTGTTTTCTATTAATTGTGGCTTTGTACCAGTCAATTTTCAGAGCCAACTGGATCA
TCTTTCTTTTGGGATATATCCACATATTATTATGTGGAATTTATATATACTGATTTAT
ATACACTCAGAAGCATAACAGTATAATGTTGCAAAGAGTAATTTTTTAAGTTCCAGCA
GATCTGTAAATTTTTAACGTTAAAAAATGCCAGTTTCAGTAGATTCTTTCACCAACGT

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Fig. 28c (con't)

ACATCTGTTT TAGAAATTACTGAAAGAAATCATAACGCATAACTCTGCAGTTTATTTT
ATGAAGGCTAATTAATAGGTACTTACTCATTAAAGACTAGGTCTGGTGCAAAATAGA
GAAATTGGCTGTTTCGTATGTTTGTACGATCTCCAGCTCAAGGCAAATGATGATAGAC
ACATCCAAGAATACTGGATTAGGGTAATTTGGTCCTCAAGAGGCAAGTTTTTAAATC
CTGAAGAACAAAACAATTAATCACAGAAATACACTTAGCATTTAAGTACATTCCAG
GAAGATGCTTCTTAAGTCAACCCCAAACAGCCACCTTTCTTTCACTTTTCTCTTTTCT
GACAGACTCAAATCAATTCAACAGTCATTTACAGAGTGCCCACTGGCCAGTCC
TGTTCCACATTTCACTTTAAATTCATCCTAAATTCTAGATGAGGGTAAACTGCCAGG
GCAAATAAAATTGCAAAGTTCAGCAAGTTTCAGTGTGGATGACAGCCTAAAACCC
TTGGTTAGATTGAGAGAATTTGTATTAACCTGTAAAACCTTGCTTCGTCCCAACCCACA
ATTAATAACACTAAAATAAAGGGTAATTTAATAACTGTCAAACCTGTGTATCTGCA
ATAATGGTGGGAGATTTCAATTGTTTCATGAGGCGGCCGCTTGATCTGATCTGAGTCAC
TGAATGGGATACTGTCCGCAAGGGCGGGGGCTATTCTTGTCATCTGGGCCTACGGA
ACCAGCACCCATCGCCAAACTCTTCATCCTCTTCCTCAATCTCGCTTTCTCTCTCGCT
CGCTTTTTTTCTCTTCTCCTTTTTTTTTTTTTTTTTTTTTTCCCCGCAAAAGGAGGG
GAGAGGGGGTAAAAAATGCTGCACTGTGCGGCAAGGCCGGTGAATAAACGACTCG
AATCCAATCACCCCCCGCGTTCCTAAAGTTGCCTTTTATGGCTCGAGTGGCCGCTG
TGGCTTCCTATAAAACCCGGCGGCGCAACCCCCAGCCACTGTCAAATCAAGCTAAC
GCCACCATGGTGAGCAAGGGCGAGGAGCTGTTACCGGGGTGGTGCCCATCCTGGT
CGAGCTGGACGGCGACGTAAACGGCCACAAGTTCAGCGTGTCCGGCGAGGGCGAGG
GCGATGCCACCTACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTG
CCCGTGCCCTGGCCCAACCTCGTGACCACCTTCGGCTACGGCCTGCAGTGCTTCGCC
CGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGCCCGAAGG
CTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTACAAGACCCGCG
CCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCGCATCGAGCTGAAGGGCATC
GACTTCAAGGAGGACGGCAACATCCTGGGGCACAAGCTGGAGTACAACACTACAACAG
CCACAACGTCTATATCATGGCCGACAAGCAGAAGAACGGCATCAAGGTGAACCTTCA
AGATCCGCCACAACATCGAGGACGGCAGCGTGCAGCTCGCCGACCACTACCAGCAG
AACACCCCCATCGGCGACGGCCCCGTGCTGCTGCCCCGACAACCACTACCTGAGCTAC
CAGTCCGCCCTGAGCAAAGACCCCAACGAGAAGCGCGATCACATGGTCTCTGCTGGA
GTTCTGTGACCGCCGCGGGATCACTCTCGGCATGGACGAGCTGTACAAGAACTTGTT
TATTGCAGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTACAAATAA
AGCATTTTTTTTCACTGCATTCTAGTTGTGGTTTGTCCAACTCATCAATGTATCTTAT
CATGTCGTGGCCTGCATGGCCCCGGCCGCACCGCGGTGGAGCTCCAATTCGCCCTATA
GTGAGTCGTATTACGCGCGCTCACTGGCCGTCGTTTTACAACGTCGTGACTGGGAAA
ACCCTGGCGTTACCCAACCTAATCGCCTTGACGACATCCCCCTTTCGCCAGCTGGC
GTAATAGCGAAGAGGCCCGCACCGATCGCCCTTCCCAACAGTTGCGCAGCCTGAAT
GGCGAATGGGACGCGCCCTGTAGCGGCGCATTAAAGCGCGGCGGGTGTGGTGGTTAC
GCGCAGCGTGACCGCTACACTTGCCAGCGCCCTAGCGCCCGCTCCTTTCGCTTTCTTC
CCTTCCTTTCTCGCCACGTTTCGCCGGCTTTCCCCGTCAAGCTCTAAATCGGGGGCTCC
CTTTAGGGTTCCGATTTAGTGCTTTACGGCACCTCGACCCCAAAAACTTGATTAGG
GTGATGGTTACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTTCGCCCTTTGACGTT
GGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCCAACTGGAACAACACTCAACCC
TATCTCGGTCTATTCTTTTGATTTATAAGGGATTTTGCCGATTTTCGGCCTATTGGTTA
AAAAATGAGCTGATTTAACAAAAATTTAACGCGAATTTTAACAAAAATATTAACGCTT
ACAATTTAGGTGGCACTTTTCGGGGAAATGTGCGCGGAACCCCTATTTGTTTATTTTT

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Fig. 28d (con't)

CTAAATACATTCAAATATGTATCCGCTCATGAGACAATAACCCTGATAAATGCTTCA
ATAATATTGAAAAAGGAAGAGTATGAGTATTCAACATTTCCGTGTCGCCCTTATTCC
CTTTTTTGCGGCATTTCCTTCTGTTTTTGTCTACCCAGAAACGCTGGTGAAAGTA
AAAGATGCTGAAGATCAGTTGGGTGCACGAGTGGGTACATCGAACTGGATCTCAA
CAGCGGTAAAGATCCTTGAGAGTTTTTCGCCCCGAAGAACGTTTTCCAATGATGAGCAC
TTTTAAAGTTCTGCTATGTGGCGCGGTATTATCCCGTATTGACGCCGGGCAAGAGCA
ACTCGGTGCGCCGATACACTATTCTCAGAATGACTTGTTGAGTACTCACCAGTCAC
AGAAAAGCATCTTACGGATGGCATGACAGTAAGAGAATTATGCAGTGCTGCCATAA
CCATGAGTGATAACACTGCGGCCAACTTACTTCTGACAACGATCGGAGGACCGAAG
GAGCTAACCGCTTTTTTGCACAACATGGGGGATCATGTAACCTCGCCTTGATCGTTGG
GAACCGGAGCTGAATGAAGCCATACCAAACGACGAGCGTGACACCACGATGCCTGT
AGCAATGGCAACAACGTTGCGCAAACCTATTAAGTGGCGAACTACTTACTCTAGCTTC
CCGGCAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGCAGGACCACTTCTGC
GCTCGGCCCTTCCGGCTGGCTGGTTTATTGCTGATAAATCTGGAGCCGGTGAGCGTG
GGTCTCGCGGTATCATTGCAGCACTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAG
TTATCTACACGACGGGGAGTCAGGCAACTATGGATGAACGAAATAGACAGATCGCT
GAGATAGGTGCCTCACTGATTAAGCATTGGTAAGTGTGACACCAAGTTTACTCATAT
ATACTTTAGATTGATTTAAACTTCATTTTTTAATTTAAAGGATCTAGGTGAAGATCC
TTTTTGATAATCTCATGACCAAAATCCCTTAACGTGAGTTTTTCGTTCCACTGAGCGTC
AGACCCCGTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAAT
CTGCTGCTTGCAAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTGGCCGGATCA
AGAGCTACCAACTCTTTTTCCGAAGGTAAGTGGCTTCAGCAGAGCGCAGATACCAA
TACTGTCCTTCTAGTGATAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACC
GCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAA
GTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTC
GGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCG
AACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGA
AAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGG
AGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTTCGCCACCTCT
GACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAAC
GCCAGCAACGCGGCCTTTTTACGGTTTCTGGCCTTTTGCTGGCCTTTTGCTCACATGT
TCTTTCCTGCGTTATCCCTGATTCTGTGGATAACCGTATTACCGCCTTTGAGTGAGC
TGATACCGCTCGCCGCAGCCGAACGACCGAGCGCAGCGAGTCAGTGAGCGAGGAAG
CGGAAGAGCGCCCAATACGCAAACCGCCTCTCCCCGCGCGTTGGCCGATTCATTAAT
GCAGCTGGCACGACAGGTTTCCCGACTGGAAAGCGGGCAGTGAGCGCAACGCAATT
AATGTGAGTTAGCTCACTCATTAGGCACCCAGGCTTTACACTTTATGCTTCCGGCTC
GTATGTTGTGTGGAATTGTGAGCGGATAACAATTTACACAGGAAACAGCTATGACC
ATGATTACGCCAAGCGCGCAATTAACCCTCACTAAAGGGAACAAAAGCTGGGTACC
GGGCCCCCCTCGAGGTGACGGTATCGATAAGCTTCCAGTGGATCAGANAAACAA
TGATCCACGAGAGATCTATAGATCTATAGATCATGAGTGGAGGAATGAGCTGGCC
CTTAATTTGGTTTTGCTTGTAAATTATGATATCCAATATGAAACATTATCATAAA
GCAATAGTAAAGAGCCTTCAGTAAAGAGCAGGCATTTATCTAATCCCACCCCCACCC
CCACCCCCGTAGCTCCAATCCTTCCATTCAAATGTAGGTACTCTGTTCTCACCTTC
TTAACAAAGTATGACAGTAAAAAACTTCCATTTTAGTGACATCTTTATTGTTTAAT
AGATCATCAATTTATGCAGACTTACAGCTGGGATTTATCAGATTGCCATGCTGAGT
CAAGAACAGTGAGTGACGAAGCTAACCAGAGGCTACATACGTCAGAGAGAGAGCTC

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Fig. 28e (con't)

AGCCTTTACAGCTCACTTCCTTTCTCAGGCATTTCCTTTGCCCTCGGACGAGTGCTGGG
GCGTCGGTTTCCACTATCGGCGAGTACTTCTACACAGCCATCGGTCCAGACGGCCGC
GCTTCTGCGGGCGATTTGTGTACGCCCCGACAGTCCCGGCTCCGG

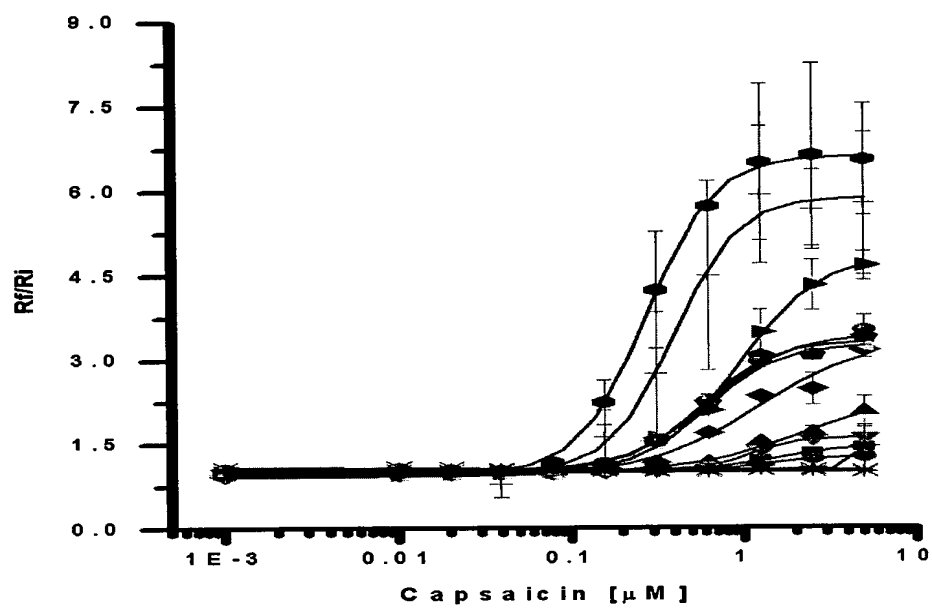


Figure 29

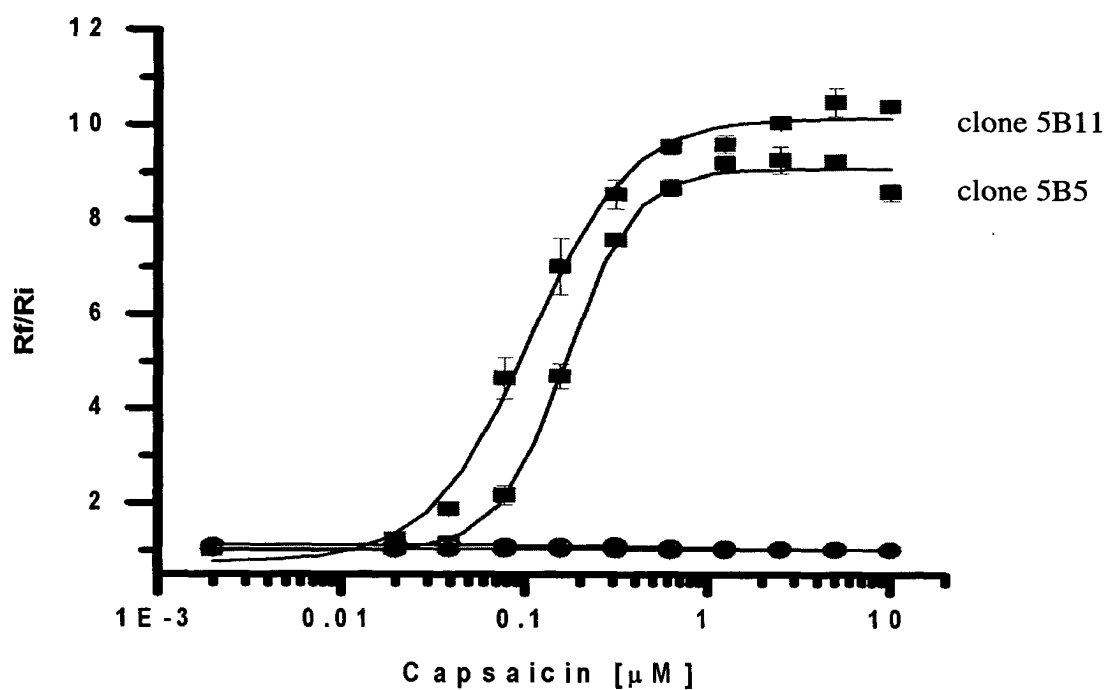


Figure 30

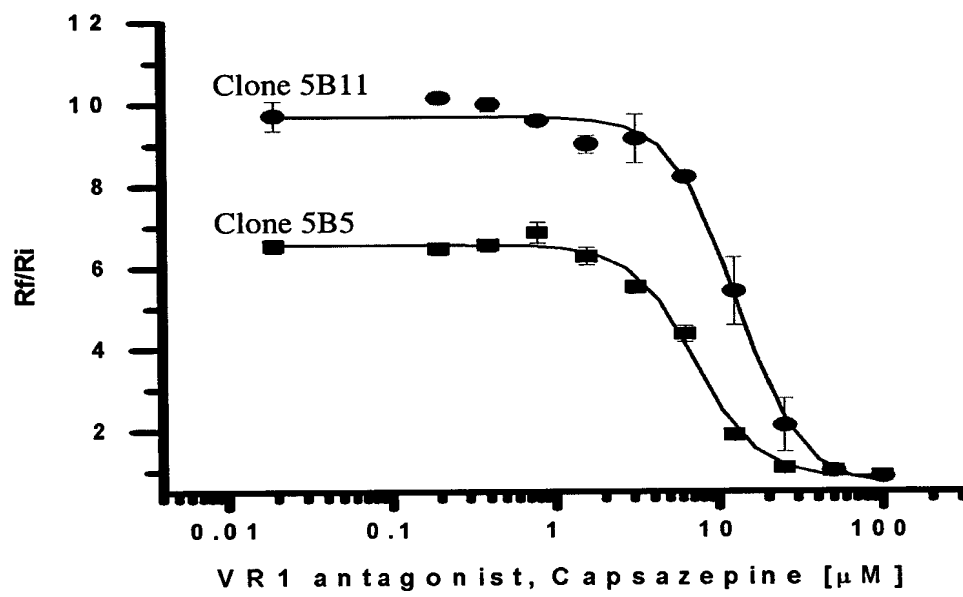


Figure 31

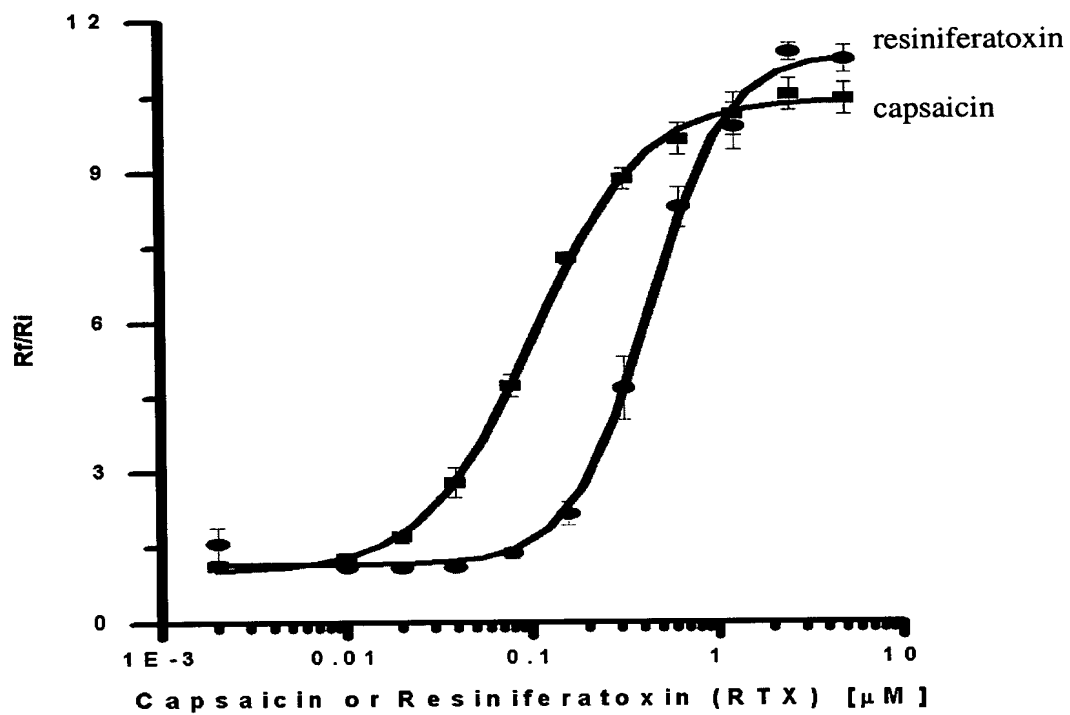


Figure 32

Vanilloid Region of Homology (SEQ ID NO:86)

TTCAAGCGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGGCGC
CCGACACCACGCCCCGGCTAATTTTTTGTATTTTTTTTAGTAGAGATGGGATT
TCACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACC
TGCTTTGGCCTCCCAAAGTGCTGGGATTACAGGGCGTGAGCCACGCGCCCA
GGCCAGTACAGCTTCTTCATAAGGAGATGGACCAGGAAAGGTCCCTGCCC
AGGAGGAGGTACAGGGTGCGGGAGAGATAAATCAGTGACAGATAGCAA
TTGCTGGACCACATGGTAGGCTGTGTGGGACAGGCGGTCACTGGGCTGGG
CCACTGTGTGGAGGACAGCGGGGAGCATGAGCAGGGCAGGGATCTGGGG
GCTTCATGGAGGAGGCGGCATCAGTGCTGGATCCTGAGGGGAAGTAGCAT
CTGAGTGGTGATAGGACTTGTGCAAGGGTAGACAGAGGAAAAAGCCCTTA
GGTGAGACCCGATGGGAATAGAGGCTATGGGAGGGATGTATGGGCCAC
CCCTGGGTGCCAGGGAGTGGGGATGCCAGCCAGAGGGAGGGGAAGCAT
GGGGATGGGGCAGGATGGGAGTGGAAAATAGCATCAGCTCATGTGTCCA
ACTACACATGCTGCTGCCAGCGGCCAGCTGATCTCTAGGTGTTTAGGCCTA
GAAGACCAACCAGCTCCAAATCACTTAAAGCCTAAACGTTCCCTGTCTCT
ACTAAAAATACAAACATTAGCCACGCATGGTGGCGGGCGCCTGTAATCCC
AGCTACTTGGGAGGCTGAGGGAGGAGAATCGCTTGAACCTGGGAGGTGG
AGGTTGCAGTGAACAGAGATTGCCCCATTGCACTCTAGTCTGGGCGACAG
AGTGAGACACACACACACACACACACACACACGCCTAAACATTCAAG
GCCAGGATGCTTGACAGATGTTGATTCTATAAAAATGACAAAAAGCACAAA
ATCCAAAATCTCGTATAAGCTCAGTGGCTGTGGCAGCGAGGTTGAAGAGC
AAAGGCAGGCCGGGCACCTGGCTGATGATGTGTGGACCCGTTGCACAGCA
GGGCCCCGCAGTGCGGTGTGGGTGTGGGTGGGCCAGTCTCTGCCGCTCAC
CCTATTCCAGGGACACAGTCTGCTTGGCTCTTCTGGACTGAGCCATCCTCA
TCACCGAGATCCTCCCTGAATTCAGCCCACGACAGCCACCCCGGCCGTTTT
CCTTGTTCTGTGTGGGGAGGGAGGCAGCGCGGTGGTTATCAACCTCACCC
TGCAGAGGAGGCACCTGAGGCCCGGGGCCTGTCCACCCTCCCAGGCCG
ACGTCAGTGGCCGCAGGACTGCCTGGGCCCTGCTAGGCCTGCTCACCTCT
GAGGCCTCTGGGGTGAGAGGTTCACTCCTGGAAACACTTCAGTTCTAGGG
GGCTGGGGGCAGCAGCAAGTTGGAGTTTTTGGGGTACCCTGCTTCACAGGG
CCCTTGGAAGCGGCCGCTCAGATCTAGAGAGCCACACCCCATGTTGTCT
CACTTGCAATTGGGGAGAGAAGGGATCCTTCCCCAGAGGGTAGGCAGTAT
CTGTTCTGGCTTTGGAGTTGAGAAAGACTCAGATCATAACACGTCTCTGTG
GGCAGAATCGATTCTTTTAGGATTGTCCTTTAGTCCAGATTGATGAGTTTG
TGAGTCTTGTGTAAACCAGAATCACCATCTCCATCACACAGCCAACACTC
GTTTGCCTAAATCACGGTAGAAGTTCCCCTGATCACTGTAGAATGTTTTGC
GGTGACAGGTGCATCACACACGGGCTTAGGTGCAGGGTAACTCCAGGCCT
GGCAGTGGAGGGCTGTCCTGACCCTGTTCCCCGGCCCAGCCCAGGGCACA
TGACCCCTCAGTTCTGTCCCACCCCGTTCCCTGGAAGAAGCTTGGTTTCC
AGTAGGGAATCAGGTGCAGAGTGTGCAGTATAGATTACAGCGTTTGTGAC
TGACTGAATGATAGCACAAATCCAGGCTGCTTCCTGTTGGCTGGGTTTGGTT
GGACTGGGACCCGTCAGAGGAAAAGGCAACGCCGCTGACAAAGAACATT
GCCGAAAGGTTTCATGGGAGGCTCCGGCTAACAGGTGCTCTCTTGCTGGGC
TGCCTAACGAGCAGCCCCTATTCTTATTCTTAGCTTATTCTTGGAGACCAT
AGACATCCCTGGGACAGCCAGGCATGGGTATGACCTGGGTCTTATTCACA
CTGCATTTTGGGGTTCCTGAGCTGCTTGTGTTGAGCGAGAGGTGCTTCAGGT
TCAGGTCTTATGCCTAGCCCCCTTGGGTGAGAGGGCCTATTCTGATTGGCCC

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Fig. 33b (con't)

CCAGGCCCTGCTGTGGAGTCTGGGTCTGAGTTGAACTGCTGAGAAAGAGC
CCCAGACCTCCAGCATCGTGGTGGAGCACTGGAGATGCTCTGGAGCCAGC
CTGCCTGGGGTCAAGTCCGGGTTCATCTCTGACTGTGTGACCTCGGGGAC
GTGCCATAACTGCTCTGTGCCTCGGTCTCCTCATCGGTGAAGTATTTCCCT
CTTAGGGATGTTGTGGGAATGAAGTGGGTGAAGGAATGCGAGTCCTGAGA
ACCGTGTCTGCTTTGTGCACGTGCTCAGACGCATCAACGATTCTGCTTCTC
ATTGCTTCTGGTGCCTTTTAAGTGTGCGCAGGGCTGTCCGCACTGTGAAC
GGTCCTTGACGGGGTGTTATCTTCAGAAAGGGAAGACTAGCACCCGGCCC
CCCAGGCTTCCAAAGCATCATCCATGCAACCATGTTGGCTTTCAATTCCCT
GGAGTTAAGGCTGACGGCCATCTGGTTCTAACC CGCCTCCTGTCTTCTG
TCCCCTGACTTCCCCTTCTTCAGCTGCTCTAGGCTTCCCTGTCTGTCTCCA
GACCCTAGCCACCTCTGTTCCCTTCCCAGGCTCAGCTCATCCATCACCAA
CTGCCATGGACCCCTCTTCAGCACCTGCCCCCTCCTGCAGTCCCTCCGCC
CAGCCAGTACCTGGTTTCTGTCTCAGCGGGGAGCTGACTCCTCTCTGTGCC
CCCAGCGCAGGGCTGGACTCTGAGGAGGAGGACTCAGTAGATAGGTATTG
AGTGATGAGATGAGGGAATCGGCTTTCTGTGGCCGGGAACACTCCTGCTG
CAGGGGGTCCACCTGATGGGTGAGTCAGAGAAAGACTCAGGCCTGTTGAA
AGTGGATCAACAGGCAGGCAGGGAGATGGCCAGTAGCCAGCCGTCCGTC
CTGTTACAGCCTGCGGAGTGGTGAGGCTGCCTCTGTGTTTTTCATGGATCT
GAGATTCAGAACGTAGCTGGTTTACAGCCATGGCCCAGTTGTGTGCTCTG
GAGTTTCACTGCCTGAATTTTAACTTGAAAATGTAGGACTTGGGAGTCTCT
CTGAGCCATTCTGGCTTGGGAGATTGCCTGATTATATATTTCAAAAAAAAAA
AAAAAAGAAAATGCAGGACTTGAGAAGCCTCTCATTTCTTCTGCGGCTGT
TTTCCGGAATGTAGCCACTGCTGGAACAGTAATCTCCCTAACTTCCTATGG
AAATGGCAATTAGAAGGGTCTGATTGCTCTTATTTCCCATGTGTGCAGCT
GCTGCTGCTGCTGCTGCTGCTGCTTCTTTTTTTTTTTTTTTTTTTTTTTGA
GACAGAGTTTCACTCTGTTGCCAGGCTGGAGTGCAGTGGCACAGTCTCA
GCTCACTGTAACCTCTACATCCTGGG

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Fig. 34

EYPFP (SEQ ID NO:84)

CTTGTACAGCTCGTCCATGCCGAGAGTGATCCCGGCGGGCGGTACGAACT
CCAGCAGGACCATGTGATCGCGCTTCTCGTTGGGGTCTTTGCTCAGGGCGG
ACTGGTAGCTCAGGTAGTGGTTGTCGGGCAGCAGCACGGGGCCGTCGCCG
ATGGGGGTGTTCTGCTGGTAGTGGTCGGCGAGCTGCACGCTGCCGTCCTC
GATGTTGTGGCGGATCTTGAAGTTCACCTTGATGCCGTTCTTCTGCTTGTC
GGCCATGATATAGACGTTGTGGCTGTTGTAGTTGTACTCCAGCTTGTGCCC
CAGGATGTTGCCGTCCTCCTTGAAGTCGATGCCCTTCAGCTCGATGCGGTT
CACCAGGGTGTGCGCCTCGAACTTCACCTCGGCGCGGGTCTTGTAGTTGCC
GTCGTCCTTGAAGAAGATGGTGCCTCCTGGACGTAGCCTTCGGGCATGG
CGGACTTGAAGAAGTCGTGCTGCTTCATGTGGTTCGGGGTAGCGGGCGAAG
CACTGCAGGCCGTAGCCGAAGGTGGTCACGAGGGTGGGGCCAGGGCACGG
GCAGCTTGCCGGTGGTGCAGATGAACTTCAGGGTCAGCTTGCCGTAGGTG
GCATCGCCCTCGCCCTCGCCGGACACGCTGAACTTGTGGCCGTTTACGTCG
CCGTCCAGCTCGACCAGGATGGGCACCAACCCCGGTGAACAGCTCCTCGCC
CTTGCTCACCATGGTGGCGACCGGTGGATCCTTCTAGAGTCGACGATCGA
AGTTAGCTTGATTTGACAGTGGCTGGGGGTTCGCGCCGCCGGGTTTTATAGG
AAGCCACAGCGGCCACTCGAGCCATAAAAGGCAACTTTAGGAACGGCGG
GGGGTGATTGGATTCGAGTCGTTTATTCACCGGCCTTGCCGCACAGTGCAG
CATTTTTTTACCCCTCTCCCTCCTTTTTCGGGGGAAAAAAAAAAAAAAAAA
AAAAAAAAAAGGAGAAGAGAAAAAAAAAGCGAGCGAGAGAGAAAGCGAGAT
TGAGGAAGAGGATGAAGAGTTTGGCGATGGGTGCTGGTTCCGTAGGCCCA
GATGGACAAGAATAGCCCCCGCCCTTGCGGACAGTATCCCATTCAGTGAC
TCAGATCAGATCAAGC

pKI-CMV-SD (SEQ ID NO:82)

TCCCTTTAGTGAGGGTTAATTGCGCGCTTGGCGTAATCATGGTCATAGCTG
TTTCCTGTGTGAAATTGTTATCCGCTCACAATTCCACACAACATACGAGCC
GGAAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCAC
ATTAATTGCGTTGCGCTCACTGCCCCGCTTTCCAGTCGGGAAACCTGTCGTG
CCAGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGGCGGTTTTCGCTA
TTGGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTTCGTTT
GGCTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAAATACGGTTATCC
ACAGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGC
AAAAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGG
CTCCGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTG
GCGAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCT
CCCTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCG
CCTTTCTCCCTTCGGGAAGCGTGGCGCTTTTCTCATAGCTCACGCTGTAGGT
ATCTCAGTTCGGTGTAGGTCGTTTCGCTCCAAGCTGGGCTGTGTGCACGAAC
CCCCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACTATCGTCTTGAGT
CCAACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAAC
AGGATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTG
GTGGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCT
GCTGAAGCCAGTTACCTTCGAAAAAGAGTTGGTAGCTCTTGATCCGGCA
AACAAACCACCGCTGGTAGCGGTGGTTTTTTTTGTTTGCAAGCAGCAGATTA
CGCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGG
TCTGACGCTCAGTGGAACGAAAACCTCACGTAAAGGGATTTTGGTCATGAG
ATTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTAATAAATGAAGTTT
TAAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAAT
GCTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCA
TAGTTGCCTGACTCCCCGTCGTGTAGATAACTACGATACGGGAGGGCTTA
CCATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACCGGC
TCCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGA
AGTGGTCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGG
GAAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTTCGCAACGTTGTTGC
CATTGCTACAGGCATCGTGGTGTACGCTCGTCGTTTGGTATGGCTTCATT
CAGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTG
CAAAAAAGCGGTTAGCTCCTTCGGTCCTCCGATCGTTGTCAGAAGTAAGTT
GGCCGCAGTGTTATCACTCATGTTATGGCAGCACTGCATAATTCTCTTAC
TGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAA
GTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTC
AATACGGGATAAATACCGCGCCACATAGCAGAACTTTAAAAGTGCTCATCA
TTGGAACACGTTCTTCGGGGCGAAAACCTCTCAAGGATCTTACCGCTGTTG
AGATCCAGTTCGATGTAACCCACTCGTGCAACCCAACTGATCTTCAGCATCT
TTACTTTTACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGC
CGCAAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCT
TCCTTTTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGCG
GATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGC
ACATTTCCCCGAAAAGTGCCACCTAAATTGTAAGCGTTAATATTTTGTTAA
AATTCGCGTTAAATTTTTGTTAAATCAGCTCATTTTTTAACCAATAGGCCG
AAATCGGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTG
AGTGTGTTGTTCCAGTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTC
CAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTG

METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS

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Fig. 35b (con't)

AACCATCACCCCTAATCAAGTTTTTTGGGGTTCGAGGTGCCGTAAAGCACTA
AATCGGAACCCTAAAGGGAGCCCCGATTAGAGCTTGACGGGGAAAGCC
GGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGC
TAGGGCGCTGGCAAGTGTAGCGGTACGCTGCGCGTAACCACCACACCCG
CCGCGCTTAATGCGCCGCTACAGGGCGCGTCCCATTCGCCATTACAGGCTGC
GCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCCAG
CTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAAACGCCAG
GGTTTTCCAGTCACGACGTTGTAAAACGACGGCCAGTGAGCGCGCGTAA
TACGACTCACTATAGGGCGAATTGGAGCTCCACCGCGGTGGCGGGCCGCTC
TAGAACTAGTGGATCCCCCGGGACCGGTCCCCCACTCACCTGCCAGTAA
GCAGTGGGTTCTCTAGTTAGCCAGAGAGCTCTGCTTATATAGACCTCCAC
CGTACACGCCTACCGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACA
TTTTGGAAAGTCCCGTTGATTTTGGTGCCAAAACAACTCCCATTGACGTC
AATGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCC
CATTGATGTACTGCCAAAACCGCATCACCATGGTAATAGCGATGACTAAT
ACGTAGATGTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGGC
ATAATGCCAGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTAC
TTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAAT
AGTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGA
ACATACGTCATTATTGACGTCAATGGGCGGGGGTCGTTGGGCGGTCAGCC
AGGCGGGCCATTTACCGTAAGTTATGTAACGCGGAACCTCCATATATGGGC
TATGAACATAATGACCCCGTAATTGATTACTATTAATAACTAGTCAATAATC
AATGTCAACGCCCCGGGCTGCAGGAATTCTACCGGGTAGGGGAGGCGCTTT
TCCCAAGGCAGTCTGGAGCATGCGCTTTAGCAGCCCCGCTGGCACTTGGC
GCATCACAAGTGGCCTCTGGCCTCGCACACATTCCACATCCACCGGTAGC
GCCAACCGGCTCCCTTCTTTGGTGGCCCCCTTCGCGCCACCTTCTACTCCTCC
CCTAGTCAGGAAGTTCCCCCCCCGCCCCGCAGCTCGCGTCGTGCAGGACGT
GACAAATGGAAGTAGCACGTCTCACTAGTCTCGTGCAGATGGACAAGCAC
CGCTGAGCAATGGAAGCGGGTAGGCCTTTGGGGCAGCGGCCAATAGCAG
CTTGGCTCCTTCGCTTTCTGGGCTCAGAGGCTGGGAAGGGGTGGGTCCGG
GGGCGGGCTCAGGGGCGGGCTCAGGGGCGGGGCGGGCGCGAAGGTCCTC
CGGACCCGGCATTCTGCACGCTTCAAAAGCGCACGTCTGCCGCGCTGTTCT
CCTCTTCTCATCTCCGGGCCTTCGACCTGCATGAAAAAGCCTGAACTCAC
CGCGACGTCTGTGAGAAAGTTTCTGATCGAAAAGTTTCGACAGCGTCTCCG
ACCTGATGCAGCTCTCGGAGGGCGAAGAATCTCGTGCTTTCAGCTTCGAT
GTAGGAGGGCGTGATATGTCTGCGGGTAAATAGCTGCGCCGATGGTTT
CTACAAAGATCGTTATGTTTATCGGCACTTTGCATCGGCCGCGCTCCCGAT
TCCGGAAGTGCTTGACATTGGGGAATTCAGCGAGAGCCTGACCTATTGCA
TCTCCCGCCGTGCACAGGGTGTACGTTGCAAGACCTGCCTGAAACCGAA
CTGCCCGCTGTTCTGCAGCCGGTTCGCGGAGGCCATGGATGCGATCGCTGC
GGCCGATCTTAGCCAGACGAGCGGGTTCGGCCCATTCGGACCGCAAGGAA
TCGGTCAATACACTACATGGCGTGATTTTCATATGCGCGATTGCTGATCCCC
ATGTGTATCACTGGCAAACGTGTGATGGACGACACCGTCAGTGCGTCCGTC
GCGCAGGCTCTCGATGAGCTGATGCTTTGGGCCGAGGACTGCCCCGAAGT
CCGGCACCTCGTGCACGCGGATTTCCGGCTCCAACAATGTCCTGACGGACA
ATGGCCGCATAACAGCGGTCAATTGACTGGAGCGAGGCGATGTTTCGGGGAT
TCCCAATACGAGGTCGCCAACATCTTCTTCTGGAGGCCGTGGTTGGCTTGT
ATGGAGCAGCAGACGCGCTACTTCGAGCGGAGGCATCCGGAGCTTGCAGG
ATCGCCGCGGCTCCGGGCGTATATGCTCCGCATTGGTCTTGACCAACTCTA
TCAGAGCTTGGTTGACGGCAATTTTCGATGATGCAGCTTGGGCGCAGGGTC

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Fig. 35c (con't)

GATGCGACGCAATCGTCCGATCCGGAGCCGGGACTGTCGGGCGTACACAA
ATCGCCCGCAGAAGCGCGGCCGTCTGGACCGATGGCTGTGTAGAAGTACT
CGCCGATAGTGGAACCGACGCCCCAGCACTCGTCCGAGGGCAAAGGAA
TGAGCTCGCTGATCAGCCTCGACTGTGCCTTCTAGTTGCCAGCCATCTGTT
GTTTGCCCCTCCCCCGTGCCTTCCCATTTGTCTGAGTAGGTGTCATTCTATTC
TGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGATTGGGAAGACAA
TAGCAGGCATGCTGGGGATGCGGTGGGCTCTATGGCTTCTGAGGCGGAAA
GAACCAGCTGGGGGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGG
GGCCCGGTACCCAGCTTTTGT

pKI-CMV-SD-Vanilloid (SEQ ID NO:83)

CGATCGCTGCGGCCGATCTTAGCCAGACGAGCGGGTTCGGCCCATTCGGA
CCGCAAGGAATCGGTCAATACACTACATGGCGTGATTTTCATATGCGCGAT
TGCTGATCCCCATGTGTATCACTGGCAAACGTGTGATGGACGACACCGTCA
GTGCGTCCGTGCGCGCAGGCTCTCGATGAGCTGATGCTTTGGGCCGAGGAC
TGCCCCGAAGTCCGGCACCTCGTGCACGCGGATTTTCGGCTCCAACAATGT
CCTGACGGACAATGGCCGCATAACAGCGGTCATTGACTGGAGCGAGGCGA
TGTTTCGGGGATTCCCAATACGAGGTCGCCAACATCTTCTTCTGGAGGCCGT
GGTTGGCTTGTATGGAGCAGCAGACGCGCTACTTCGAGCGGAGGCATCCG
GAGCTTGCAGGATCGCCGCGGCTCCGGGCGTATATGCTCCGCATTGGTCTT
GACCAACTCTATCAGAGCTTGGTTGACGGCAATTTTCGATGATGCAGCTTG
GGCGCAGGGTCGATGCGACGCAATCGTCCGATCCGGAGCCGGGACTGTGCG
GGCGTACACAAATCGCCCGCAGAAGCGCGGGCGTCTGGACCGATGGCTGT
GTAGAAGTACTCGCCGATAGTGGAACCGACGCCCCAGCACTCGTCCGAG
GGCAAAGGAATGAGCTCGCTGATCAGCCTCGACTGTGCCTTCTAGTTGCC
AGCCATCTGTTGTTTGGCCCTCCCCCGTGCCTTCCCATTGTCTGAGTAGGT
GTCATTCTATTCTGGGGGGTGGGGTGGGGCAGGACAGCAAGGGGGAGGA
TTGGGAAGACAATAGCAGGCATGCTGGGGATGCGGTGGGCTCTATGGCTT
CTGAGGCGGAAAGAACCAGCTGGGGGATATCAAGCTTATCGATACCGTCG
ACCTCGAGGGGGGGCCCGGTACCCAGCTTTTGTTCCTTTAGTGAGGGTTA
ATTGCGCGCTTGGCGTAATCATGGTCATAGCTGTTTCCTGTGTGAAATTGT
TATCCGCTCACAATTCCACACAACATACGAGCCGGAAGCATAAAGTGTA
AGCCTGGGGTGCCTAATGAGTGAGCTAACTCACATTAATTGCGTTGCGCTC
ACTGCCCCTTTCCAGTCGGGAAACCTGTCGTGCCAGCTGCATTAATGAAT
CGGCCAACGCGCGGGGAGAGGCGGTTTGCCTATTGGGCGCTCTTCCGCTT
CCTCGCTCACTGACTCGCTGCGCTCGGTCTGTTTCGGCTGCGGCGAGCGGTAT
CAGCTCACTCAAAGGCGGTAATACGGTTATCCACAGAATCAGGGGATAAC
GCAGGAAAGAACATGTGAGCAAAAGGCCAGCAAAAGGCCAGGAACCGTA
AAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCTCCGCCCCCTGACGAGC
ATCACAAAATCGACGCTCAAGTCAGAGGTGGCGAAACCCGACAGGACT
ATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCCCTCGTGCCTCTCCTGT
TCCGACCCTGCCGCTTACCGGATACCTGTCCGCTTTCTCCCTTCGGGAAG
CGTGGCGCTTTCTCATAGCTCACGCTGTAGGTATCTCAGTTCGGTGTAGGT
CGTTCGCTCCAAGCTGGGCTGTGTGCACGAACCCCCGTTACGCCCCGACC
GCTGCGCCTTATCCGGTAACCTATCGTCTTGAGTCCAACCCGGTAAGACACG
ACTTATCGCCACTGGCAGCAGCCACTGGTAACAGGATTAGCAGAGCGAGG
TATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTA
CACTAGAAGGACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTT
CGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAAACAAACCACCGCTGGTA
GCGGTGGTTTTTTTTGTTTGCAAGCAGCAGATTACGCGCAGAAAAAAAGGA
TCTCAAGAAGATCCTTTGATCTTTTCTACGGGGTCTGACGCTCAGTGGAAC
GAAAACCTACGTTAAGGGATTTTGGTCATGAGATTATCAAAAAGGATCTT
CACCTAGATCCTTTTAAATTAATAAATGAAGTTTTTAAATCAATCTAAAGTAT
ATATGAGTAACTTGGTCTGACAGTTACCAATGCTTAATCAGTGAGGCAC
CTATCTCAGCGATCTGTCTATTTTCGTTTCATCCATAGTTGCCTGACTCCCCGT
CGTGTAGATAACTACGATACGGGAGGGCTTACCATCTGGCCCCAGTGCTG
CAATGATACCGCGAGACCCACGCTCACCGGCTCCAGATTTATCAGCAATA
AACCAGCCAGCCGGAAGGGCCGAGCGCAGAAGTGGTCCTGCAACTTTATC
CGCCTCCATCCAGTCTATTAATTGTTGCCGGGAAGCTAGAGTAAGTAGTTC

TTGTTGTTG

[illegible]

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Fig. 36c (con't)

ATGCCGCCTCCTCCATGAAGCCCCCAGATCCCTGCCCTGCTCATGCTCCCC
GCTGTCCTCCACACAGTGGCCCAGCCCAGTACCGCCTGTCCCACACAGC
CTACCATGTGGTCCAGCAATTGCTATCTGTCACTGATTTATCTCTCCCGCA
CCCTGTGACCTCCTCCTGGGCAGGGACCTTTCTGTGGTCCATCTCCTTATGA
AGAAGCTGTACTGGCCTGGGCGCGTGGCTCACGCCTGTAATCCCAGCACT
TTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTCAGGAGTTCGAGACCA
GCCTGGCCAACATGGTGAAATCCCATCTCTACTAAAAAATAACAAAAAT
TAGCCGGGCGTGGTGTCTGGGCGCCTGTAATCCCAGCTACTCGGGAGGCTG
AGGCAGGAGAATCGCTTGAACCCAGGATGTAGAGGTTACAGTGAGCTGA
GACTGTGCCACTGCACTCCAGCCTGGGCAACAGAGTGAAACTCTGTCTCA
AAAAAAAAAAAAAAAAAAAAAAAAAAGAAGCAGCAGCAGCAGCAGCAGCA
GCAGCTGCACACATGGGGAAATAAGAGCAATCAGACCCTTCTAATTGCCA
TTTCCATAGGAAGTTAGGGAGATTACTGTTCCAGCAGTGGCTACATTCCGG
AAACAGCCGCAGAAGAAATGAGAGGCTTCTCAAGTCCTGCATTTTCTTT
TTTTTTTTTTTGAAATATATAATCAGGCAATCTCCCAAGCCAGAATGGCT
CAGAGAGACTCCCAAGTCCTACATTTTCAAGTTAAATTCAGGCAGTGAA
ACTCCAGAGCACACAACCTGGGCCATGGCTGTAAACCAGCTACGTTCTGAA
TCTCAGATCCATGAAAACACAGAGGCAGCCTCACCCTCCGCAGGCTGTG
AACAGGACGGACGGCTGGCTACTGGCCATCTCCCTGCCTGCCTGTTGATCC
ACTTTCAACAGGCCTGAGTCTTTCTCTGACTCACCCATCAGGTGGACCCCC
TGCAGCAGGAGTGTTCCTCGGCCACAGAAAGCCGATTCCCTCATCTCATCA
CTCAATACCTATCTACTGAGTCCTCCTCCTCAGAGTCCAGCCCTGCGCTGG
GGGCACAGAGAGGAGTCAGCTCCCCGCTGAGACAGAAACCAGGTACTGG
CTGGGCGGAGGGACTGCAGGAGGGGGCAGGGTGCTGAAGAGGGGTCCAT
GGCAGTTGGTGATGGATGAGCTGAGCCTGGGAAGGGAACAGAGGTGGGC
TAGGGTCTGGAGACAGACAGGGAAGCCTAGAGCAGCTGAAGAACGGGAA
GTCAGTGGGACAGGAAGACAGGAGGCCGGGTAGAACAGATGGCCGTC
AGCCTTAACCTCCAAGGAATTGAAAGCCAACATGGTTGCATGGATGATGCT
TTGGAAGCCTGGGGGGCCGGGTGCTAGTCTTCCCTTTCTGAAGATAACAC
CCCGTCAAGGACCGTTACAGTGCGGACAGCCCTGGCAGCACTTAAAGG
CACCAGAAGCGAATGAGAAGCAGAATCGTTGATGCGTCTGAGCACGTGCA
CAAAGCAGACACGGTTCTCAGGACTCGCATTCCTTCACCCACTTCATTCCC
ACAACATCCCTAAGAGGGAAATACTTCACCGATGAGGAGACCGAGGCAC
AGAGCAGTTATGGCACGTCCCCGAGGTACACAGTCAGAGATGGAACCCG
GACTTGACCCCAAGGCAGGCTGGCTCCAGAGCATCTCCAGTGCTCCACCAC
GATGCTGGAGGTCTGGGGCTCTTTCTCAGCAGTTCAACTCAGACCCAGACT
CCACAGCAGGGCCTGGGGGCCAATCAGAATAGGCCCTCTCACCCAAGGGG
CTAGGCATAAGACCTGAACCTGAAGCACCTCTCGCTCAAACAAGCAGCTC
AGGAACCCCAAATGCAGTGTGAATAAGACCCAGGTCATACCCATGCCTG
GCTGTCCCAGGGATGTCTATGGTCTCCAAGAATAAGCTAAGAATAAGAAT
AGGGGCTGCTCGTTAGGCAGCCCAGCAAGAGAGCACCTGTTAGCCGGAGC
CTCCCATGAACCTTTCGGCAATGTTCTTTGTGTCAGCGGCGTTGCCTTTTCTC
TGACGGGTCCAGTCCAACCAAACCCAGCCAACAGGAAGCAGCCTGGATT
GTGCTATCATTCAAGTCAGTCGACAAACGCTGAATCTATACTGCACACTCTG
CACCTGATTCCCTACTGGAAACCAAGCTTCTTCCAGGGAACGGGGTGGGA
CAGGAAGTGAAGGGTTCATGTGCCCTGGGCTGGGCCGGGGAACAGGGTCA
GGACAGCCCTCCACTGCCAGGCCTGGAGTGTACCCTGCACCTAAGCCCGT
GGTGATGCACCTGTCACCGCAAAACATTCTACAGTGATCAGGGGAACCTC
TACCGTGATTTAGGCAAACGAGTGTTGGCTGTGTGATGGAGATGGTGATT
CTGGTTTACACAAGACTCACAACTCATCAATCTGGACTAAAGGACAATC

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Fig. 36d (con't)

CTAAAAGAATCGATTCTGCCCACAGAGACGTGGTATGATCTGAGTCTTTCT
CAACTCCAAAGCCAGAACAGATACTGCCTACCCTCTGGGGGAAGGATCCC
TTCTCTCCCAATGCAAGTGAGACAACATGGGGTGTGGCTCTCTAGAACT
AGTGGATCCCCCGGGACCGGTCCCCCACTCACCTGCCAGTAAGCAGTGG
GTTCTCTAGTTAGCCAGAGAGCTCTGCTTATATAGACCTCCCACCGTACAC
GCCTACCGCCCATTTGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAA
AGTCCCGTTGATTTTGGTGCCAAAACAACTCCCATTGACGTCAATGGGGT
GGAGACTTGGAATCCCCGTGAGTCAAACCGCTATCCACGCCCATTGATG
TACTGCCAAAACCGCATCACCATGGTAATAGCGATGACTAATACGTAGAT
GTACTGCCAAGTAGGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCC
AGGCGGGCCATTTACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATA
TGATACACTTGATGTACTGCCAAGTGGGCAGTTTACCGTAAATAGTCCACC
CATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAACATACGT
CATTATTGACGTCAATGGGCGGGGGTCTGTTGGGCGGTCAGCCAGGCGGGC
CATTTACCGTAAGTTATGTAACGCGGAACTCCATATATGGGCTATGAACTA
ATGACCCCGTAATTGATTACTATTAATAACTAGTCAATAATCAATGTCAAC
GCCCCGGGCTGCAGGAATTCTACCGGGTAGGGGAGGCGCTTTTCCCAAGGC
AGTCTGGAGCATGCGCTTTAGCAGCCCCGCTGGCACTTGGCGCATCACAA
GTGGCCTCTGGCCTCGCACACATTCCACATCCACCGGTAGCGCCAACCGG
CTCCCTTCTTTGGTGGCCCCCTTCGCGCCACCTTCTACTCCTCCCCTAGTCAG
GAAGTTCCCCCCCCGCCCCGAGCTCGCGTCGTGCAGGACGTGACAAATGG
AAGTAGCACGTCTCACTAGTCTCGTGCAGATGGACAAGCACCGCTGAGCA
ATGGAAGCGGGTAGGCCTTTGGGGCAGCGGCCAATAGCAGCTTGGCTCCT
TCGCTTTCTGGGCTCAGAGGCTGGGAAGGGGTGGGTCCGGGGGCGGGCTC
AGGGGCGGGCTCAGGGGCGGGGCGGGCGCGAAGGTCCTCCGGACCCGGC
ATTCTGCACGCTTCAAAGCGCACGTCTGCCGCGCTGTTCTCCTCTTCCTC
ATCTCCGGGCCTTCGACCTGCATGAAAAAGCCTGAACTCACCGCGACGTC
TGTCGAGAAGTTTCTGATCGAAAAGTTCGACAGCGTCTCCGACCTGATGC
AGCTCTCGGAGGGCGAAGAATCTCGTGCTTTTACGCTTCGATGTAGGAGGG
CGTGGATATGTCCTGCGGGTAAATAGCTGCGCCGATGGTTTCTACAAAGA
TCGTTATGTTTATCGGCACCTTTGCATCGGCCGCGCTCCCGATTCCGGAAGT
GCTTGACATTGGGGAATTCAGCGAGAGCCTGACCTATTGCATCTCCCGCC
GTGCACAGGGTGTACGTTGCAAGACCTGCCTGAAACCGAACTGCCCCGCT
GTTCTGCAGCCGGTCGCGGAGGCCATGGATG

pKI-CMV-SD-Vanilloid-YFP (SEQ ID NO:85)

TTTTTACCCCCTCTCCCCTCCTTTTGC GGGGGGAAAAAAAAAAAAAAAAAAAA
AAAAAAGGAGAAGAGAAAAAAAAAGCGAGCGAGAGAGAAAGCGAGATTGA
GGAAGAGGATGAAGAGTTTGGCGATGGGTGCTGGTTCCGTAGGCCCAGAT
GGACAAGAATAGCCCCCGCCCTTGCGGACAGTATCCCATTGAGTCACTCA
GATCAGATCAAGCCGGCCGCTTGCCAAGGGCCCTGTGAAGCAGGGTACCC
CAAACTCCAAGTTGCTGCTGCCCCCAGCCCCCTAGAACTGAAGTGTTTCC
AGGACTGAACCTCTCACCCAGAGGCCTCAGAGGTGAGCAGGCCTAGCAG
GGCCCAGGCAGTCCTGCGGCCACTGACGTCGGCCTGGGAGGGTGGACAGG
CCCCCGGCTCAGAGCCATCTGTGGTTCTGGGTTAGACCCATCCCTCCTCGT
CTCTGGGCCTCAGGTGCCTCCTCTGCAGGGTGAGGTTGATAACCACCGCG
CTGCCTCCCTCCCCACACAGAACAAGGAAAACGGCCGGGGTGGCTGTCTG
GGGCTGAATTCAGGGAGGATCTCGGTGATGAGGATGGCTCAGTCCAGAAG
AGCCAAGCAGACTGTGTCCCTGGAATAGGGTGAGCGGCAGAGACTGGCCC
ACCCACACCCACACCGCACTGCGGGGCCCTGCTGTGCAACGGGTCCACAC
ATCATCAGCCAGGTGCCCGGCCTGCCTTTGCTCTTCAACCTCGCTGCCACA
GCCACTGAGCTTATACGAGATTTTGGATTTTGTGCTTTTTGTGCTTTTATG
AATCAACATCTGTCAAGCATCCTGGCCTTGAATGTTTAGGCGTGTGTGTGT
GTGTGTGTGTGTGTGTGTCTACTCTGTGCCCCAGACTAGAGTGCAATGGG
GCAATCTCTGTTCACTGCAACCTCCACCTCCCAGGTTCAAGCGATTCTCCT
CCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCGCCCGCCACCATGCGTG
GCTAATGTTTGTATTTTTAGTAGAGACAGGGAACGTTTAGGCTTTAAGTGA
TTTGGAGCTGGTTGGTCTTCTAGGCCTAAACACCTAGAGATCAGCTGGCCG
CTGGCAGCAGCATGTGTAGTTGGACACATGAGCTGATGCTATTTTCCACTC
CCATCCTGCCCCATCCCCATGCTTCCCCTCCCTCTGGCTGGGCATCCCCAC
TCCCTGGCACCCAGGGGTGGCCCATACATCCCTCCCATAGCCTCTATTCCC
ATCGGGTCTCCACCTAAGGGCTTTTTCTCTGTCTACCCTTGACAAAGTCC
TATCACCCTCAGATGCTACTTCCCCTCAGGATCCAGCACTGATGCCGCCT
CCTCCATGAAGCCCCCAGATCCCTGCCCTGCTCATGCTCCCCGCTGTCTC
CACACAGTGGCCCAGCCCACTGACCGCCTGTCCCACACAGCCTACCATGT
GGTCCAGCAATTGCTATCTGTCACTGATTTATCTCTCCCGCACCCCTGTGAC
CTCCTCCTGGGCAGGGACCTTTCTGGTCCATCTCCTTATGAAGAAGCTGT
ACTGGCCTGGGCGCGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGC
CAAGGCAGGTGGATCACCTGAGGTCAGGAGTTTCGAGACCAGCCTGGCCAA
CATGGTGAAATCCCATCTCTACTAAAAAAATACAAAAATTAGCCGGGCG
TGGTGTGCGGGCGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGA
ATCGCTTGAACCCAGGATGTAGAGGTTACAGTGAGCTGAGACTGTGCCAC
TGCACTCCAGCCTGGGCAACAGAGTGAACTCTGTCTCAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAGAAGCAGCAGCAGCAGCAGCAGCAGCAGCTGCACAC
ATGGGGAAATAAGAGCAATCAGACCCTTCTAATTGCCATTTCCATAGGAA
GTTAGGGAGATTACTGTTCCAGCAGTGGCTACATTCCGGAAAAACAGCCGC
AGAAGAAATGAGAGGCTTCTCAAGTCCTGCATTTTCTTTTTTTTTTTTTTG
AAATATATAATCAGGCAATCTCCCAAGCCAGAATGGCTCAGAGAGACTCC
CAAGTCCTACATTTTCAAGTTAAAATTCAGGCAGTGAACTCCAGAGCAC
ACAACTGGGCCATGGCTGTAAACCAGCTACGTTCTGAATCTCAGATCCAT
GAAAACACAGAGGCAGCCTCACCCTCCGCAGGCTGTGAACAGGACGGA
CGGCTGGCTACTGGCCATCTCCCTGCCTGCCTGTTGATCCACTTTCAACAG
GCCTGAGTCTTTCTCTGACTACCCATCAGGTGGACCCCCTGCAGCAGGAG
TGTTCCCGGCCACAGAAAGCCGATTCCCTCATCTCATCACTCAATACCTAT

METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS

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Fig. 37b (con't)

CTACTGAGTCCTCCTCCTCAGAGTCCAGCCCTGCGCTGGGGGCACAGAGA
GGAGTCAGCTCCCCGCTGAGACAGAAACCAGGTACTGGCTGGGCGGAGG
GACTGCAGGAGGGGGCAGGGTGCTGAAGAGGGGTCCATGGCAGTTGGTG
ATGGATGAGCTGAGCCTGGGAAGGGAACAGAGGTGGGCTAGGGTCTGGA
GACAGACAGGGAAGCCTAGAGCAGCTGAAGAACGGGAAGTCAGTGGGAC
AGGAAGACAGGAGGCCGGGTAGAACAGATGGCCGTCAGCCTTAACTCC
AAGGAATTGAAAGCCAACATGGTTGCATGGATGATGCTTTGGAAGCCTGG
GGGGCCGGGTGCTAGTCTTCCCTTTCTGAAGATAACACCCCGTCAAGGAC
CGTTCACAGTGCGGACAGCCCTGGCAGCACTTAAAAGGCACCAGAAGCGA
ATGAGAAGCAGAATCGTTGATGCGTCTGAGCACGTGCACAAAGCAGACAC
GGTTCTCAGGACTCGCATTCTTCACCCACTTCATTCCCACAACATCCCTA
AGAGGGAAATACTTCACCGATGAGGAGACCGAGGCACAGAGCAGTTATG
GCACGTCCCCGAGGTCACACAGTCAGAGATGGAACCCGGACTTGACCCCA
GGCAGGCTGGCTCCAGAGCATCTCCAGTGCTCCACCACGATGCTGGAGGT
CTGGGGCTCTTTCTCAGCAGTTCAACTCAGACCCAGACTCCACAGCAGGG
CCTGGGGGCCAATCAGAATAGGCCCTCTCACCCAAGGGGCTAGGCATAAG
ACCTGAACCTGAAGCACCTCTCGCTCAAACAAGCAGCTCAGGAACCCCAA
AATGCAGTGTGAATAAGACCCAGGTCATACCCATGCCTGGCTGTCCCAGG
GATGTCTATGGTCTCCAAGAATAAGCTAAGAATAAGAATAGGGGCTGCTC
GTTAGGCAGCCCAGCAAGAGAGCACCTGTTAGCCGGAGCCTCCCATGAAC
CTTTCGGCAATGTTCTTTGTCAGCGGCGTTGCCTTTTCTCTGACGGGTCCC
AGTCCAACCAAACCCAGCCAACAGGAAGCAGCCTGGATTGTGCTATCATT
CAGTCAGTCGACAAACGCTGAATCTATACTGCACACTCTGCACCTGATTCC
CTACTGGAAACCAAGCTTCTTCCAGGGAACGGGGTGGGACAGGAACTGAG
GGGTCATGTGCCCTGGGCTGGGCCGGGGAACAGGGTCAGGACAGCCCTCC
ACTGCCAGGCCTGGAGTGTAACCTGCACCTAAGCCCGTGGTGATGCACCT
GTCACCGCAAAACATTCTACAGTGATCAGGGGAACTTCTACCGTGATTTA
GGCAAACGAGTGTTGGCTGTGTGATGGAGATGGTGATTCTGGTTTACACA
AGACTCACAACTCATCAATCTGGACTAAAGGACAATCCTAAAAGAATCG
ATTCTGCCCACAGAGACGTGGTATGATCTGAGTCTTTCTCAACTCCAAAGC
CAGAACAGATACTGCCTACCCTCTGGGGGAAGGATCCCTTCTCTCCCCAAT
GCAAGTGAGACAACATGGGGTGTGGCTCTCTAGAACTAGTGGATCCCCCG
GGACCGGTCCCCCCTCACCTGCCAGTAAGCAGTGGGTTCTCTAGTTAGC
CAGAGAGCTCTGCTTATATAGACCTCCCACCGTACACGCCTACCGCCCAT
TGCGTCAATGGGGCGGAGTTGTTACGACATTTTGGAAAGTCCCGTTGATTT
TGGTGCCAAAACAACTCCCATTGACGTCAATGGGGTGGAGACTTGGA
TCCCCGTGAGTCAAACCGCTATCCACGCCCATTGATGTACTGCCAAAACC
GCATCACCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTA
GGAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTT
ACCGTCATTGACGTCAATAGGGGGCGTACTTGGCATATGATACACTTGAT
GTACTGCCAAGTGGGCAGTTTACCGTAAATAGTCCACCCATTGACGTCAA
TGGAAGTCCCTATTGGCGTTACTATGGGAACATACGTCATTATTGACGTC
AATGGGCGGGGGTTCGTTGGGCGGTCAGCCAGGCGGGCCATTTACCGTAAG
TTATGTAACGCGGAACCTCCATATATGGGCTATGAACTAATGACCCCGTAA
TTGATTACTATTAATACTAGTCAATAATCAATGTCAACGCCCCGGGCTGCA
GGAATTCTACCGGGTAGGGGAGGCGCTTTTCCCAAGGCAGTCTGGAGCAT
GCGCTTTAGCAGCCCCGCTGGCACTTGGCGCATCACAAAGTGGCCTCTGGC
CTCGCACACATTCCACATCCACCGGTAGCGCCAACCGGCTCCCTTCTTTGG
TGGCCCCCTTCGCGCCACCTTCTACTCCTCCCCTAGTCAGGAAGTTCCCCC
CGCCCCGCAGCTCGCGTCGTGCAGGACGTGACAAATGGAAGTAGCACGTC

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Fig. 37c (con't)

TCACTAGTCTCGTGCAGATGGACAAGCACCGCTGAGCAATGGAAGCGGGT
AGGCCTTTGGGGCAGCGGCCAATAGCAGCTTGGCTCCTTCGCTTTCTGGGC
TCAGAGGCTGGGAAGGGGTGGGTCCGGGGGCGGGCTCAGGGGCGGGCTC
AGGGGCGGGGCGGGCGCGAAGGTCCTCCGGACCCGGCATTCTGCACGCTT
CAAAAGCGCACGTCTGCCGCGCTGTTCTCCTCTTCCTCATCTCCGGGCCTT
CGACCTGCATGAAAAAGCCTGAACCTACCGCGACGTCTGTGCGAGAAGTTT
CTGATCGAAAAGTTTCGACAGCGTCTCCGACCTGATGCAGCTCTCGGAGGG
CGAAGAATCTCGTGCTTTTACGCTTCGATGTAGGAGGGCGTGGATATGTCCT
GCGGGTAAATAGCTGCGCCGATGGTTTCTACAAAGATCGTTATGTTTATCG
GCACTTTGCATCGGCCGCGCTCCCGATTCCGGAAGTGCTTGACATTGGGG
AATTCAGCGAGAGCCTGACCTATTGCATCTCCCGCCGTGCACAGGGTGTG
ACGTTGCAAGACCTGCCTGAAACCGAACTGCCCCGCTGTTCTGCAGCCGGT
CGCGGAGGCCATGGATGCGATCGCTGCGGCCGATCTTAGCCAGACGAGCG
GGTTCGGCCCATTCGGACCGCAAGGAATCGGTCAATACACTACATGGCGT
GATTTTCATATGCGCGATTGCTGATCCCCATGTGTATCACTGGCAAACCTGTG
ATGGACGACACCGTCAGTGCCTCCGTCGCGCAGGCTCTCGATGAGCTGAT
GCTTTGGGCCGAGGACTGCCCCGAAGTCCGGCACCTCGTGCACGCGGATT
TCGGCTCCAACAATGTCCTGACGGACAATGGCCGCATAACAGCGGTCATT
GACTGGAGCGAGGCGATGTTTCGGGGATTCCCAATACGAGGTGCGCAACAT
CTTCTTCTGGAGGCCCGTGGTTGGCTTGTATGGAGCAGCAGACGCGCTACTT
CGAGCGGAGGCATCCGGAGCTTGCAGGATCGCCGCGGCTCCGGGCGTATA
TGCTCCGCATTGGTCTTGACCAACTCTATCAGAGCTTGGTTGACGGCAATT
TCGATGATGCAGCTTGGGCGCAGGGTCGATGCGACGCAATCGTCCGATCC
GGAGCCGGGACTGTCGGGCGTACACAAATCGCCCCGAGAAAGCGCGGCCG
TCTGGACCGATGGCTGTGTAGAAAGTACTCGCCGATAGTGGAACCGACGC
CCCAGCACTCGTCCGAGGGCAAAGGAATGAGCTCGCTGATCAGCCTCGAC
TGTGCCTTCTAGTTGCCAGCCATCTGTTGTTTGCCCCCTCCCCCGTGCTTCC
CATTGTCTGAGTAGGTGTCATTCTATTCTGGGGGGTGGGGTGGGGCAGGA
CAGCAAGGGGGAGGATTGGGAAGACAATAGCAGGCATGCTGGGGATGCG
GTGGGCTCTATGGCTTCTGAGGCGGAAAGAACCAGCTGGGGGATATCAAG
CTTATCGATACCGTCGACCTCGAGGGGGGGGCCCGGTACCCAGCTTTTGTTC
CCTTTAGTGAGGGTTAATTGCGCGCTTGGCGTAATCATGGTCATAGCTGTT
TCCTGTGTGAAATTGTTATCCGCTCACAATTCCACACAACATACGAGCCGG
AAGCATAAAGTGTAAGCCTGGGGTGCCTAATGAGTGAGCTAACTCACAT
TAATTGCGTTGCGCTCACTGCCCCGCTTTCCAGTCGGGAAACCTGTCGTGCC
AGCTGCATTAATGAATCGGCCAACGCGCGGGGAGAGGCGGTTTGCGTATT
GGGCGCTCTTCCGCTTCCTCGCTCACTGACTCGCTGCGCTCGGTCTCGG
CTGCGGCGAGCGGTATCAGCTCACTCAAAGGCGGTAATACGGTTATCCAC
AGAATCAGGGGATAACGCAGGAAAGAACATGTGAGCAAAAGGCCAGCAA
AAGGCCAGGAACCGTAAAAAGGCCGCGTTGCTGGCGTTTTTCCATAGGCT
CCGCCCCCTGACGAGCATCAAAAAATCGACGCTCAAGTCAGAGGTGGC
GAAACCCGACAGGACTATAAAGATACCAGGCGTTTCCCCCTGGAAGCTCC
CTCGTGCGCTCTCCTGTTCCGACCCTGCCGCTTACCGGATACCTGTCCGCC
TTTCTCCCTTCGGGAAGCGTGGCGCTTTCTCATAGCTCACGCTGTAGGTAT
CTCAGTTCGGTGTAGGTGCTTCGCTCCAAGCTGGGCTGTGTGCACGAACCC
CCCGTTCAGCCCGACCGCTGCGCCTTATCCGGTAACCTATCGTCTTGAGTCC
AACCCGGTAAGACACGACTTATCGCCACTGGCAGCAGCCACTGGTAACAG
GATTAGCAGAGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGT
GGCCTAACTACGGCTACACTAGAAGGACAGTATTTGGTATCTGCGCTCTG
CTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGCTCTTGATCCGGCAA

METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS

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Fig. 37d (con't)

ACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTGTTGCAAGCAGCAGATTAC
GCGCAGAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTACGGGGT
CTGACGCTCAGTGGAACGAAACTCACGTTAAGGGATTTTGGTCATGAGA
TTATCAAAAAGGATCTTCACCTAGATCCTTTTAAATTAATAAATGAAGTTTT
AAATCAATCTAAAGTATATATGAGTAAACTTGGTCTGACAGTTACCAATG
CTTAATCAGTGAGGCACCTATCTCAGCGATCTGTCTATTTTCGTTTCATCCAT
AGTTGCCTGACTCCCCGTCGTGTAGATAACTACGATACGGGAGGGCTTAC
CATCTGGCCCCAGTGCTGCAATGATACCGCGAGACCCACGCTCACCGGCT
CCAGATTTATCAGCAATAAACCAGCCAGCCGGAAGGGCCGAGCGCAGAA
GTGGTCCTGCAACTTTATCCGCCTCCATCCAGTCTATTAATTGTTGCCGGG
AAGCTAGAGTAAGTAGTTCGCCAGTTAATAGTTTTCGCAACGTTGTTGCC
ATTGCTACAGGCATCGTGGTGTACGCTCGTCGTTTGGTATGGCTTCATTC
AGCTCCGGTTCCCAACGATCAAGGCGAGTTACATGATCCCCCATGTTGTGC
AAAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGTCAGAAGTAAGTT
GGCCGCAGTGTTATCACTCATGGTTATGGCAGCACTGCATAATTCTCTTAC
TGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGAGTACTCAACCAA
GTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCGGCGTC
AATACGGGATAAATACCGCGCCACATAGCAGAAGTTTAAAAGTGCTCATCA
TTGGAACCGTTCTTCGGGGCGAAAACCTCTCAAGGATCTTACCGCTGTTG
AGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCT
TTTACTTTCACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCAAAATGC
CGCAAAAAGGGAATAAGGGCGACACGGAAATGTTGAATACTCATACTCT
TCCTTTTTCAATATTATTGAAGCATTTATCAGGGTTATTGTCTCATGAGCG
GATACATATTTGAATGTATTTAGAAAAATAAACAAATAGGGGTTCCGCGC
ACATTTCCCCGAAAAGTGCCACCTAAATTGTAAGCGTTAATATTTTGTTAA
AATTTCGCGTTAAATTTTTGTAAATCAGCTCATTTTTTAACCAATAGGCCG
AAATCGGCAAAATCCCTTATAAATCAAAAGAATAGACCGAGATAGGGTTG
AGTGTGTTGTTCCAGTTTGGAACAAGAGTCCACTATTAAAGAACGTGGACTC
CAACGTCAAAGGGCGAAAAACCGTCTATCAGGGCGATGGCCCACTACGTG
AACCATCACCTAATCAAGTTTTTTTGGGGTTCGAGGTGCCGTAAAGCACTA
AATCGGAACCCTAAAGGGAGCCCCGATTTAGAGCTTGACGGGGAAAGCC
GGCGAACGTGGCGAGAAAGGAAGGGAAGAAAGCGAAAGGAGCGGGCGC
TAGGGCGCTGGCAAGTGTAGCGGTACGCTGCGCGTAACCACCACACCCG
CCGCGCTTAATGCGCCGCTACAGGGCGCGTCCCATTCGCCATTACAGGCTGC
GCAACTGTTGGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCCAG
CTGGCGAAAGGGGGATGTGCTGCAAGGCGATTAAGTTGGGTAAACGCCAG
GGTTTTCCAGTCACGACGTTGTAAAACGACGGCCAGTGAGCGCGCGTAA
TACGACTCACTATAGGGCGAATTGGAGCTCCACCGCGGTGGCGGCCGCAA
CAGACATGATAAGATACATTGATGAGTTTGGACAAACCACAAGTGAATG
CAGTGAAAAAATGCTTTATTTGTGAAATTTGTGATGCTATTGCTTTATTT
GTAACCATTATAAGCTGCAATAAACAAGTTGGGGTGGGCGAAGAACTCCA
GCATGAGATCCCCGCGCTGGAGGATCATCCAGCCGGCGTCCCGGAAAACG
ATTCCGAAGCCCAACCTTTCATAGAAGGCGGCGGTGGAATCGAAATCTCG
TGATGGCAGGTTGGGCGTCGCTTGGTGGTTCATTTTGAAGCTTTACTTGTA
CAGCTCGTCCATGCCGAGAGTGATCCCGGCGGCGGTACGAACTCCAGCA
GGACCATGTGATCGCGCTTCTCGTTGGGGTCTTTGCTCAGGGCGGACTGGT
AGCTCAGGTAGTGGTTGTGCGGCAGCAGCACGGGGCCGTCGCCGATGGGG
GTGTTCTGCTGGTAGTGGTTCGGGCGAGCTGCACGCTGCCGTCCTCGATGTTG
TGGCGGATCTTGAAGTTCACCTTGATGCCGTTCTTCTGCTTGTCGGCCATG
ATATAGACGTTGTGGCTGTTGTAGTTGTACTCCAGCTTGTGCCCCAGGATG

METHODS AND COMPOSITIONS FOR RAPID DEVELOPMENT OF SCREENING ASSAYS

Michael Allen Whitney

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Fig. 37e (con't)

TTGCCGTCCTCCTTGAAGTCGATGCCCTTCAGCTCGATGCGGTTTACCAGG
GTGTCGCCCTCGAACTTCACCTCGGCGCGGGTCTTGTAGTTGCCGTCGTCC
TTGAAGAAGATGGTGCCTCCTGGACGTAGCCTTCGGGCATGGCGGACTT
GAAGAAGTCGTGCTGCTTCATGTGGTCGGGGTAGCGGGCGAAGCACTGCA
GGCCGTAGCCGAAGGTGGTCACGAGGGTGGGCCAGGGCACGGGCAGCTT
GCCGGTGGTGCAGATGAACTTCAGGGTCAGCTTGCCGTAGGTGGCATCGC
CCTCGCCCTCGCCGGACACGCTGAACTTGTGGCCGTTTACGTCGCCGTCCA
GCTCGACCAGGATGGGCACCAACCCCGGTGAACAGCTCCTCGCCCTTGCTC
ACCATGGTGGCGACCGGTGGATCCTTCTAGAGTCGACGATCGAAGTTAGC
TTGATTTGACAGTGGCTGGGGGTTCGCGCCGCCGGGTTTTATAGGAAGCCA
CAGCGGCCACTCGAGCCATAAAAGGCAACTTTAGGAACGGCGGGGGGTG
ATTGGATTCGAGTCGTTTATTCACCGGCCTTGCCGCACAGTGCAGCATT